STN search for 10765,797

FULL ESTIMATED COST	19.10	255.71
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-30.66

STN INTERNATIONAL LOGOFF AT 13:16:01 ON 24 FEB 2005

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NEWS	2		"Ask CAS" for self-help around the clock
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NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	JAN 26	CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

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STN search for 10765,797

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 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
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FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
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FILE COVERS 1907 - 25 Feb 2005  VOL 142 ISS 9
FILE LAST UPDATED: 23 Feb 2005  (20050223/ED)

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=> e timpe/au
E1            1     TIMPAU T/AU
E2            2     TIMPAU TIT/AU
E3            0 --> TIMPE/AU
E4            5     TIMPE C/AU
E5            7     TIMPE CARSTEN/AU
E6            1     TIMPE CHRISTIAN/AU
E7            1     TIMPE ERIKA D/AU
E8            1     TIMPE ERIN M/AU
E9            1     TIMPE GERALD/AU
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STN search for 10765,797

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E10           7     TIMPE H/AU
E11         126     TIMPE H J/AU
E12          19     TIMPE HANS J/AU

=> e
E13         170     TIMPE HANS JOACHIM/AU
E14           1     TIMPE HANS JOCHIM/AU
E15           1     TIMPE HANZ JOACHIM/AU
E16           1     TIMPE HARALD/AU
E17           2     TIMPE JENNIFER M/AU
E18           1     TIMPE JOACHIM HANS/AU
E19           1     TIMPE KLAUS P/AU
E20           2     TIMPE L/AU
E21           1     TIMPE L C/AU
E22           1     TIMPE LESLIE/AU
E23          12     TIMPE LESLIE C/AU
E24           1     TIMPE LESLIE CHARLES/AU

=> s e10-15
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            126 "TIMPE H J"/AU
             19 "TIMPE HANS J"/AU
            170 "TIMPE HANS JOACHIM"/AU
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              1 "TIMPE HANZ JOACHIM"/AU
L1          324 ("TIMPE H"/AU OR "TIMPE H J"/AU OR "TIMPE HANS J"/AU OR "TIMPE
                HANS JOACHIM"/AU OR "TIMPE HANS JOCHIM"/AU OR "TIMPE HANZ JOACHI
                M"/AU)

=> s l1 and nip
           3996 NIP
L2            0 L1 AND NIP

=> s l1 and mechanistical
             43 MECHANISTICAL
L3            1 L1 AND MECHANISTICAL

=> d

L3   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   1996:457500  CAPLUS
DN   125:208140
TI   Photochemistry of 3-benzoyl-Δ2-isoxazolines and 2-
     phenyl-3-benzoylisoxazolidines
AU   Maiwald, B.; Israel, G.; Timpe, H.-J.
CS   Institut fur Org. Chemie, Universitat Halle-Wittenberg, Merseburg, 06217,
     Germany
SO   Journal of Information Recording (1996), 23(1-2, 14th Conference
     Photochemistry Section of the Society of German Chemists, 1995, Pt. 2),
     39-42
     CODEN: JIREFL; ISSN: 1025-6008
PB   Gordon & Breach
DT   Journal
LA   English


=> s nip15
L4            0 NIP15

=> s nip
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STN search for 10765,797

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L5        3996 NIP

=> s nip and 15
          3996 NIP
       1566247 15
L6          358 NIP AND 15

=> s l6 and kodak
          2623 KODAK
L7            0 L6 AND KODAK

=> s l6 and conf?
       1431501 CONF?
L8           11 L6 AND CONF?

=> d 11

L8   ANSWER 11 OF 11  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   1980:100371  CAPLUS
DN   92:100371
TI   Vaporization behavior of MnP(s) and the thermodynamics of the
     manganese-phosphorus system
AU   Myers, Clifford E.; Jung, Elyse D.; Patterson, Elizabeth L.
CS   Dep. Chem., State Univ. New York, Binghamton, NY, 13901, USA
SO   Inorganic Chemistry (1980), 19(2), 532-4
     CODEN: INOCAJ; ISSN: 0020-1669
DT   Journal
LA   English


=> d 1

L8   ANSWER 1 OF 11  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:217526  CAPLUS
TI   Saving all pan of paper machine [Machine Translation].
IN   Makino,   Tetsuo; Fujiwara,   Haruyoshi
PA   Mitsubishi Heavy Industries, Ltd., Japan
SO   Jpn. Kokai Tokkyo Koho, 19 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   JP 2004084122        A2    20040318    JP 2002-247218          20020827
PRAI JP 2002-247218             20020827


=> d his

     (FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

     FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005
               E TIMPE/AU
L1           324 S E10-15
L2             0 S L1 AND NIP
L3             1 S L1 AND MECHANISTICAL
L4             0 S NIP15
L5          3996 S NIP
L6           358 S NIP AND 15
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STN search for 10765,797

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L7            0 S L6 AND KODAK
L8           11 S L6 AND CONF?

=> s l1 and digital and plate
        38334 DIGITAL
       308909 PLATE
L9            3 L1 AND DIGITAL AND PLATE

=> d all 1-3

L9   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2003:217927  CAPLUS
DN   138:245665
ED   Entered STN:  20 Mar 2003
TI   Thermal digital lithographic printing plate
IN   Savariar-Hauck, Celin; Shimazu, Ken-Ichi; Timpe, Hans-Joachim;
     Patel, Jayanti; Huang, Jianbing
PA   Kodak Polychrome Graphics, LLC, USA
SO   U.S., 16 pp., Cont.-in-part of U.S. 6,358,669.
     CODEN: USXXAM
DT   Patent
LA   English
IC   ICM  G03F007-038
NCL  430270100; 430271100; 430273100; 430281100; 430283100; 430284100;
     430286100; 430302000; 430348000; 430944000
CC   74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 38
FAN.CNT 6
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   US 6534238            B1    20030318    US 2000-592895          20000613
     US 6352812            B1    20020305    US 1999-301866          19990429
     EP 1506856            A2    20050216    EP 2004-78162           19990608
         R:  BE, DE, ES, FR, GB, IT, NL, SE
     EP 1506857            A2    20050216    EP 2004-78163           19990608
         R:  BE, DE, ES, FR, GB, IT, NL, SE
     US 6358669            B1    20020319    US 1999-469489          19991222
     WO 2001096119         A1    20011220    WO 2000-US33605         20001212
         W:  BR, JP
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, TR
     EP 1303399            A1    20030423    EP 2000-986322          20001212
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR
     BR 2000017252         A     20030527    BR 2000-17252           20001212
     JP 2004503806         T2    20040205    JP 2002-510282          20001212
PRAI US 1998-90300P        P     19980623
     US 1999-301866        A2    19990429
     US 1999-469489        A2    19991222
     EP 1999-928429        A3    19990608
     US 2000-592895        A     20000613
     WO 2000-US33605       W     20001212
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 6534238       ICM    G03F007-038
                  NCL    430270100; 430271100; 430273100; 430281100; 430283100;
                         430284100; 430286100; 430302000; 430348000; 430944000
 US 6534238       ECLA   B41C001/10A
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STN search for 10765,797

US 6352812	ECLA	B41C001/10A
US 6358669	ECLA	B41C001/10A
JP 2004503806	FTERM	2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BE01; 2H025/CB28; 2H025/CB29; 2H025/CB45; 2H025/CC11; 2H025/DA17; 2H025/DA31; 2H025/DA36; 2H025/FA10; 2H025/FA17; 2H096/AA06; 2H096/BA10; 2H096/CA06; 2H096/EA04; 2H096/EA23; 2H096/GA08; 2H096/KA06

AB A thermally imageable element, useful as a lithog. printing **plate** precursor is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a first polymeric material; and an ink-receptive top layer comprising a second polymeric material and a solubility-suppressing component. The solubility-suppressing component may be a sep. dissoln. inhibitor compound and/or the second polymeric material may also function as a solubility-suppressing component. On thermal exposure the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing **plate** thus formed has excellent properties, including the absence of sludging of the developer.

ST thermal **digital** lithog printing **plate**

IT Lithographic plates
(thermal **digital** lithog. printing **plate**)

IT 134127-48-3, ADS-830A
RL: TEM (Technical or engineered material use); USES (Uses)
(ADS-830A, Trump IR; thermal **digital** lithog. printing **plate**)

IT 2390-59-2, C.I. 42600
RL: TEM (Technical or engineered material use); USES (Uses)
(C.I. 42600; thermal **digital** lithog. printing **plate**)

IT 52229-50-2, GANTREZ AN119
RL: TEM (Technical or engineered material use); USES (Uses)
(GANTREZ AN119; thermal **digital** lithog. printing **plate**)

IT 9016-83-5, LB 744
RL: TEM (Technical or engineered material use); USES (Uses)
(LB-744; thermal **digital** lithog. printing **plate**)

IT 184348-68-3, PMP234
RL: TEM (Technical or engineered material use); USES (Uses)
(PMP234; thermal **digital** lithog. printing **plate**)

IT 69432-40-2, Triazine B
RL: TEM (Technical or engineered material use); USES (Uses)
(Triazine B; thermal **digital** lithog. printing **plate**)

IT 69432-43-5, Triazine E
RL: TEM (Technical or engineered material use); USES (Uses)
(Triazine E; thermal **digital** lithog. printing **plate**)

IT 603-48-5 86003-21-6, ACTILANE 20 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer 153853-28-2, SPN 400 161279-62-5, JONCRYL 683 253272-47-8, Nega 107 321963-43-3, Methacrylamide-methacrylic acid-N-phenylmaleimide copolymer 381213-54-3, PD-140 381213-71-4, Jagotex MA2814/3
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal **digital** lithog. printing **plate**)

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD

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STN search for 10765,797

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(4) Anon; EP 0784233 1997 CAPLUS
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(6) Anon; WO 9707986 1997 CAPLUS
(7) Anon; WO 9739894 1997 CAPLUS
(8) Anon; EP 0823327 1998 CAPLUS
(9) Anon; EP 0864419 1998
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(23) Blanchet-Fincher; US 6066434 A 2000
(24) Brinckman; US 3645733 A 1972 CAPLUS
(25) Deroover; US 6004728 A 1999 CAPLUS
(26) Grunwald; US 5641608 A 1997 CAPLUS
(27) Haley; US 5340699 A 1994 CAPLUS
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(29) Imai; US 5202221 A 1993 CAPLUS
(30) Ishizuka; US 5731127 A 1998 CAPLUS
(31) Kamiya; US 5112743 A 1992 CAPLUS
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(35) Nguyen; US 6060217 A 2000 CAPLUS
(36) Parsons; US 6280899 B1 2001 CAPLUS
(37) Patel; US 6352811 B1 2002 CAPLUS
(38) Savariar-Hauck; US 6358669 B1 2002 CAPLUS
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(42) Takahashi; US 5569573 A 1996 CAPLUS
(43) Takeda; US 5858604 A 1999 CAPLUS
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(45) Urano; US 6251559 B1 2001 CAPLUS
(46) Verburgh; US 5536619 A 1996 CAPLUS
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(49) Vermeersch; US 6096481 A 2000 CAPLUS
(50) Walls; US 4665124 A 1987 CAPLUS
(51) Wang; US 5529891 A 1996 CAPLUS
(52) West; US 5705308 A 1998 CAPLUS
(53) West; US 5705322 A 1998 CAPLUS
(54) West; US 6060222 A 2000 CAPLUS

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:213732 CAPLUS
DN 136:270600
ED Entered STN: 21 Mar 2002
TI Thermal **digital** lithographic printing **plate**
IN Savariar-Hauck, Celin; Shimazu, Ken-ichi; **Timpe, Hans-Joachim**;

STN search for 10765,797

Patel, Jayanti; Huang, Jianbing
PA Kodak Polychrome Graphics LLC, USA
SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 301,866.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-09
NCL 430273100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6358669	B1	20020319	US 1999-469489	19991222
	US 6352812	B1	20020305	US 1999-301866	19990429
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	US 6534238	B1	20030318	US 2000-592895	20000613
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	EP 1999-928429	A3	19990608		
	US 1999-469489	A2	19991222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6358669	ICM	G03F007-09
	NCL	430273100
US 6358669	ECLA	B41C001/10A
US 6352812	ECLA	B41C001/10A
US 6534238	ECLA	B41C001/10A

AB A thermally imageable element, useful as a lithog. printing **plate** precursor that can be thermally imaged by imagewise exposure with a laser or a thermal printing head is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a 1st polymeric material; and an ink-receptive top layer comprising a 2nd polymeric material. Preferably, the top layer comprises a compound that functions as a solubility-suppressing component. The solubility-suppressing component may be a sep. dissoln. inhibitor compound and/or the 2nd polymeric material may also function as a solubility-suppressing component. On thermal exposure, the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing **plate** thus formed has excellent properties, including the absence of sludging of the developer.

ST thermal **digital** lithog printing **plate** Novolak sulfonamide imide amide; hydrophilic photothermal lithog printing **plate**

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT Lithographic plates
(thermal imaging; thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT 2390-59-2 27754-99-0 134127-48-3, ADS 830A 184348-68-3 404928-04-7

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

IT 63-74-1D, reaction products with GANTREZ AN119 131662-79-8D, reaction products with p-aminobenzenesulfonamide 321963-43-3 404927-95-3 404927-96-4
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal **digital** lithog. printing **plate** having hydrophilic substrate and polymer underlayer containing photothermal conversion material)

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Anon; DE 2626769 1977 CAPLUS
(3) Anon; EP 0368327 1990 CAPLUS
(4) Anon; DE 4231324 1993 CAPLUS
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(8) Anon; WO 9707986 1997 CAPLUS
(9) Anon; WO 9739894 1997 CAPLUS
(10) Anon; EP 0823327 1998 CAPLUS
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(15) Anon; EP 919868 A1 1999 CAPLUS
(16) Aoshima; US 5141838 A 1992 CAPLUS
(17) Blanchet-Fincher; US 6066434 A 2000
(18) Brinckman; US 3645733 A 1972 CAPLUS
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(41) Vermeersch; US 6083663 A 2000 CAPLUS
(42) Vermeersch; US 6096481 A 2000 CAPLUS
(43) Wang; US 5529891 A 1996 CAPLUS
(44) West; US 5705308 A 1998 CAPLUS
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(46) West; US 6060222 A 2000 CAPLUS

STN search for 10765,797

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L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:923695 CAPLUS
DN 136:61542
ED Entered STN: 21 Dec 2001
TI Thermal **digital** lithographic printing **plate**
IN Hauck, Celin-Savariar; Shimazu, Kenichi; **Timpe, Hans-Joachim**; Patel, Jayanti; Huang, Jianbing
PA Kodak Polychrome Graphics Company Ltd., USA
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B41C001-10
ICS B41N003-03
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096119	A1	20011220	WO 2000-US33605	20001212
	W: BR, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6534238	B1	20030318	US 2000-592895	20000613
	EP 1303399	A1	20030423	EP 2000-986322	20001212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	BR 2000017252	A	20030527	BR 2000-17252	20001212
	JP 2004503806	T2	20040205	JP 2002-510282	20001212
PRAI	US 2000-592895	A	20000613		
	US 1998-90300P	P	19980623		
	US 1999-301866	A2	19990429		
	US 1999-469489	A2	19991222		
	WO 2000-US33605	W	20001212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001096119	ICM	B41C001-10
	ICS	B41N003-03
US 6534238	ECLA	B41C001/10A
JP 2004503806	FTERM	2H025/AA04; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BE01; 2H025/CB28; 2H025/CB29; 2H025/CB45; 2H025/CC11; 2H025/DA17; 2H025/DA31; 2H025/DA36; 2H025/FA10; 2H025/FA17; 2H096/AA06; 2H096/BA10; 2H096/CA06; 2H096/EA04; 2H096/EA23; 2H096/GA08; 2H096/KA06

AB A thermally imageable element, useful as a lithog. printing **plate** precursor is disclosed. The element comprises a hydrophilic substrate; an underlayer comprising a first polymeric material; and an ink-receptive top layer comprising a second polymeric material and a solubility-suppressing component. The solubility-suppressing component may be a sep. dissoln. inhibitor compound and/or the second polymeric material may also function as a solubility-suppressing component. On thermal exposure the exposed regions of the top layer becomes more readily soluble in an aqueous developer, allowing the developer to remove the top layer and reveal the surface of the hydrophilic substrate. The lithog. printing **plate** thus formed

has excellent properties, including the absence of sludging of the developer.

ST thermal **digital** lithog printing **plate**

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy functional; thermal **digital** lithog. printing **plate** containing)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, tosylated; thermal **digital** lithog. printing **plate** containing)

IT Lithographic plates
Thermal printing materials
(polymeric material and substrate for)

IT 134127-48-3, EC 2117
RL: TEM (Technical or engineered material use); USES (Uses)
(ADS 830A, EC 2117, Trump IR, inhibitor; thermal **digital** lithog. printing **plate** containing)

IT 9016-83-5, LB 744
RL: TEM (Technical or engineered material use); USES (Uses)
(LB 744; thermal **digital** lithog. printing **plate** containing)

IT 184348-68-3, PMP 234
RL: TEM (Technical or engineered material use); USES (Uses)
(PMP 234; thermal **digital** lithog. printing **plate** containing)

IT 94108-97-1D, Ditrimethylolpropane tetraacrylate, polymer with acrylic resin
RL: TEM (Technical or engineered material use); USES (Uses)
(Sartomer 355; thermal **digital** lithog. printing **plate** photopolymerizable composition containing)

IT 1941-30-6, Tetrapropyl ammonium bromide 2390-59-2, Ethyl violet
RL: TEM (Technical or engineered material use); USES (Uses)
(inhibitor; thermal **digital** lithog. printing **plate** containing)

IT 27754-99-0, Polyvinyl phosphonic acid
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate coating; thermal **digital** lithog. printing **plate** containing)

IT 63-74-1D, p-Aminobenzenesulfonamide, reaction with maleimide-Me vinyl ether copolymer 98-59-9D, p-Toluene sulfonyl chloride, reaction products with cresol novolaks 52229-50-2D, Gantrez AN 119, reaction with aminobenzenesulfonamide 141634-00-6, Acrylonitrile-methyl methacrylate-N-(p-aminosulfonylphenyl)methacrylamide copolymer 153853-28-2 253272-47-8, Nega 107 321963-43-3, Methacrylic acid-methacrylamide-N-phenylmaleimide copolymer 381206-89-9 381213-54-3D, PD 140, tosylated to 3.0 mol%
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal **digital** lithog. printing **plate** containing)

IT 603-48-5, Leuco crystal violet 86003-21-6, Actilane 20 161279-62-5, Joncryl 683 381213-71-4, Jagotex MA 2814/3
RL: TEM (Technical or engineered material use); USES (Uses)
(thermal **digital** lithog. printing **plate** photopolymerizable composition containing)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Agfa-Gevaert; EP 0940266 A 1999 CAPLUS
(2) Dainippon Ink & Chemicals; EP 0737896 A 1996 CAPLUS
(3) Dainippon Ink & Chemicals; US 5731127 A 1998 CAPLUS
(4) Fuji; EP 0894622 A 1999 CAPLUS

STN search for 10765,797

(5) Horsell Graphic; WO 9739894 A 1997 CAPLUS
(6) Nguyen; US 6060217 A 2000 CAPLUS

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005
E TIMPE/AU
L1 324 S E10-15
L2 0 S L1 AND NIP
L3 1 S L1 AND MECHANISTICAL
L4 0 S NIP15
L5 3996 S NIP
L6 358 S NIP AND 15
L7 0 S L6 AND KODAK
L8 11 S L6 AND CONF?
L9 3 S L1 AND DIGITAL AND PLATE

=> s l1 and perfluoro?
47080 PERFLUORO?
L10 2 L1 AND PERFLUORO?

=> s l10 not l9
L11 2 L10 NOT L9

=> d all 1-2

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:633052 CAPLUS
DN 123:111327
ED Entered STN: 23 Jun 1995
TI Radical additions to fluoroolefins: experimental evidence for a free-radical chain mechanism in the photo-initiated addition of alcohols to fluoroolefins
AU Paleta, Oldrich; Kvicala, Jaroslav; Budkova, Zuzana; **Timpe, Hans Joachim**
CS Dep. Organic Chem., Prague Inst. Chem. Technol., Prague, 166 28, Czech Rep.
SO Collection of Czechoslovak Chemical Communications (1995), 60(4), 636-44
CODEN: CCCCAK; ISSN: 0010-0765
PB Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic
DT Journal
LA English
CC 22-4 (Physical Organic Chemistry)
OS CASREACT 123:111327
GI

$R_FCHFCF_2C(OH)Me_2$ I

AB Photo-initiated addition of 2-propanol to two fluoroolefinic compds., i.e. Me 2,4,4,5,6,6-hexafluoro-3-oxa-2-(trifluoromethyl)hex-5-enoate (I) containing **perfluoroallyloxy** group and 8,9-dichloro-1,1,2,4,4,5,7,7,8,9,9s-undecafluoro-3,6-dioxa-5-(trifluoromethyl)dodec-1-ene (II) containing

trifluorovinyloxy group were used to verify a radical chain mechanism by means of quantum yield measurements based on substrate-decay kinetic. UV-Light energy (254 nm) was transferred to the reaction system via triplet-excited acetone. Quantum yields Φ of the addition products (III, IV) reached values 68 and 42, resp., and thus confirmed the chain mechanism. The olefinic compds. I and II [Rf= MeO2CCF(CF3)OCF2, CF2ClCFClCF2OCF(CF3)CF2O] were synthesized on the basis of the reaction of 2,3-dichloro-2,3,3-trifluoropropanoyl fluoride with hexafluoropropene-1,2-oxide. The photoaddn. of 2-propanol to both olefins took place with complete regioselectivity.

ST photoaddn fluoroolefin isopropanol mechanism

IT Alkenes, reactions
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(fluoro, radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT Addition reaction
(homolytic, photochem., radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 73353-30-7P 133145-49-0P
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 133145-50-3P 133145-51-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(radical chain mechanism in the photo-initiated addition of alcs. to fluoroolefins)

IT 73353-27-2P
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(synthesis of fluoroolefins)

IT 428-59-1, Hexafluoropropene-1,2-oxide 41594-59-6, 2,3-Dichloro-2,3,3-trifluoropropanoyl fluoride
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of fluoroolefins)

IT 73353-29-4P 129392-56-9P 165602-03-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of fluoroolefins)

IT 165602-01-7P 165602-02-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of fluoroolefins)

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:439931 CAPLUS
DN 113:39931
ED Entered STN: 03 Aug 1990
TI Preparation of fluorinated alkanols
IN Paleta, Oldrich; Dedek, Vaclav; Rautschek, Holger; **Timpe, Hans Joachim**
PA Czech.
SO Czech., 4 pp.
CODEN: CZXXA9
DT Patent
LA Czech
IC ICM C07C031-38

STN search for 10765,797

CC 23-7 (Aliphatic Compounds)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 262373	B1	19890314	CS 1987-159	19870108
PRAI	CS 1987-159		19870108		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CS 262373	ICM	C07C031-38

OS MARPAT 113:39931
AB H(C2F4)nC(OH)RR1 (R and R1 = H or alkyl, n = 1-6) are prepared by reaction of C2F4 with aliphatic alcs. initiated by UV irradiation and azo or peroxo compds. and ketones. Thus, passing C2F4 in 5 h at 16-25° into a mixture of 70 mL Me2CHOH and 1.9 g azo-bisisobutyronitrile with irradiation from a Hg lamp gave 7.6 g CHF2CF2C(OH)Me2.
ST alkanol fluorinated; **perfluoroethylene** addn alkanol
IT 29759-38-4, Tetrafluoroethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition of alkanols to)
IT 78-92-2, 2-Butanol
RL: PROC (Process)
(addition of, to **perfluoroethylene**)
IT 64-17-5, Ethanol, reactions 67-56-1, Methanol, reactions 67-63-0, 2-Propanol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition of, to **perfluoroethylene**)
IT 76-37-9P 335-99-9P 355-80-6P 17425-25-1P 29553-26-2P 127982-12-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

=> d his

(FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005
E TIMPE/AU
L1 324 S E10-15
L2 0 S L1 AND NIP
L3 1 S L1 AND MECHANISTICAL
L4 0 S NIP15
L5 3996 S NIP
L6 358 S NIP AND 15
L7 0 S L6 AND KODAK
L8 11 S L6 AND CONF?
L9 3 S L1 AND DIGITAL AND PLATE
L10 2 S L1 AND PERFLUORO?
L11 2 S L10 NOT L9

=> s l1 and Digtal and printing
1 DIGTAL
130353 PRINTING
L12 0 L1 AND DIGTAL AND PRINTING

=> s l1 and Digtal
1 DIGTAL
L13 0 L1 AND DIGTAL

STN search for 10765,797

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=> s l1 and Digital
         38334 DIGITAL
L14          3 L1 AND DIGITAL

=> s l14 not l9
L15          0 L14 NOT L9

=> s l14 and printing
        130353 PRINTING
L16          3 L14 AND PRINTING

=> s l16 not l9
L17          0 L16 NOT L9

=> s l14 and (ir or infrared or infra red)
        560388 IR
        231806 INFRARED
          4653 INFRA
        362126 RED
          4048 INFRA RED
                 (INFRA(W)RED)
L18          2 L14 AND (IR OR INFRARED OR INFRA RED)

=> s l18 not l9
L19          0 L18 NOT L9

=> d his

     (FILE 'HOME' ENTERED AT 08:43:25 ON 25 FEB 2005)

     FILE 'CAPLUS' ENTERED AT 08:43:35 ON 25 FEB 2005
                E TIMPE/AU
L1           324 S E10-15
L2             0 S L1 AND NIP
L3             1 S L1 AND MECHANISTICAL
L4             0 S NIP15
L5          3996 S NIP
L6           358 S NIP AND 15
L7             0 S L6 AND KODAK
L8            11 S L6 AND CONF?
L9             3 S L1 AND DIGITAL AND PLATE
L10            2 S L1 AND PERFLUORO?
L11            2 S L10 NOT L9
L12            0 S L1 AND DIGTAL AND PRINTING
L13            0 S L1 AND DIGTAL
L14            3 S L1 AND DIGITAL
L15            0 S L14 NOT L9
L16            3 S L14 AND PRINTING
L17            0 S L16 NOT L9
L18            2 S L14 AND (IR OR INFRARED OR INFRA RED)
L19            0 S L18 NOT L9

=> s l1 and priting
               2 PRITING
L20            0 L1 AND PRITING

=> s l1 and printing
        130353 PRINTING
L21           62 L1 AND PRINTING
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STN search for 10765,797

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=> s l21 not l9
L22         59 L21 NOT L9

=> s l22 and thermal
        971678 THERMAL
L23          6 L22 AND THERMAL

=> s l22 and photo?
       1311639 PHOTO?
L24         45 L22 AND PHOTO?

=> d all l23 1-6; d all l24 1-45

L23  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2003:511923  CAPLUS
DN   139:76380
ED   Entered STN:  04 Jul 2003
TI   Process for making thermal negative printing plate
IN   Savariar-Hauck, Celin; Timpe, Hans-joachim
PA   Kodak Polychrome Graphics LLC, Germany
SO   U.S. Pat. Appl. Publ., 13 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  G03F007-038
NCL  430270100; 430281100; 430283100; 430286100; 430302000; 430306000;
     430348000; 430287100; 101463100; 101465000
CC   74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   US 2003124454        A1    20030703    US 2002-39164           20020103
     US 6599676           B2    20030729
PRAI US 2002-39164                20020103
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------  -----  ----------------------------------------------
 US 2003124454   ICM    G03F007-038
                 NCL    430270100; 430281100; 430283100; 430286100; 430302000;
                        430306000; 430348000; 430287100; 101463100; 101465000
AB   A process for making thermally imageable neg. working compns. comprises
     the steps of: (1) providing a patterning composition layer on a substrate, said
     patterning composition comprising: (a) at least one acid generator which is
     sensitive to UV radiation; (b) at least one crosslinking resin or compound;
     (c) at least one binder resin comprising a polymer containing at least one
     reactive pendent group consisting of hydroxyl, carboxylic acid,
     sulfonamide, alkoxymethylamide and mixts. thereof; and (d) at least one IR
     absorber; (2) subjecting the patterning composition layer to a two-stage
     radiation exposure; (a) one stage being a flood UV-exposure; and (b) the
     other stage being a imagewise IR exposure stage; (3) treating the exposed
     patterning composition with heat energy; and (4) developing the heat treated,
     exposed patterning composition with an aqueous alkaline developer to remove the
     non-imaged areas of the patterning composition and leaving the imaged areas
     substantially unaffected.
ST   thermal neg printing plate
IT   Printing plates
        (process for making thermal neg. printing plate)
```

STN search for 10765,797

L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:839471 CAPLUS
DN 136:29085
ED Entered STN: 19 Nov 2001
TI IR sensitive layers for manufacturing of offset **printing** plates
AU **Timpe, H.-J.**
CS Abteilung F + E, Kodak Polychrome Graphics GmbH, Osterode, D-37520, Germany
SO Materialwissenschaft und Werkstofftechnik (2001), 32(10), 785-788
CODEN: MATWER; ISSN: 0933-5137
PB Wiley-VCH Verlag GmbH
DT Journal; General Review
LA German
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB A review with refs. For the formulation of IR sensitive compns. for offset **printing** plates, 2 different modes are known to use the energy stored after the absorption of an IR photon in the excited state of an absorbing mol. A phys. mode is based on generated heat after internal crossing of the excited state. In contrast, a chemical mode proceeds via formation of reactive intermediates as consequence of the IR absorption. Such species can be generated either by **thermal** decomposition of a thermolabile component of the composition or by interaction between an excited state mol. of the IR absorber and a ground state mol. of a suited reaction partner. The heat generated by internal crossing is already used in com. available offset **printing** plates by coalescence or ablation processes. Single electron transfer reactions are processes of choice for a chemical deactivation of the excited state of IR absorbers. For a high efficiency of such processes, certain thermodn. and kinetic prerequisites must be fullfilled. Electron deficient mols. such as onium salts are well suited as reaction partners for excited states of IR absorbers.
ST review IR sensitive layer manufg offset **printing** plate
IT Optical materials
(IR absorbers; IR sensitive layers for manufacturing of offset **printing** plates)
IT Lithographic plates
(offset; IR sensitive layers for manufacturing of offset **printing** plates)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; WO 0048836
(2) Anon; EP 0825927 CAPLUS
(3) Anon; DE 19648313 CAPLUS
(4) Anon; DE 19906823 CAPLUS
(5) Anon; US 5491046 CAPLUS
(6) Anon; US 5919601 CAPLUS
(7) Anon; US 6060217 CAPLUS
(8) De Boer, C; Proceedings TAGA 1995, P29
(9) Huang, J; Proceedings NIP 1998, V14, P190
(10) Timpe, H; Proceedings NIP 1999, V15, P209
(11) Timpe, H; Top Current Chem 1990, V156, P165
(12) Van Damme, M; Proceedings ICPS 1998, P186

L23 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:785877 CAPLUS
DN 133:357279
ED Entered STN: 09 Nov 2000
TI Developing system for alkaline-developable lithographic **printing** plates
IN Fiebag, Ulrich; **Timpe, Hans-Joachim**

STN search for 10765,797

PA Kodak Polychrome Graphics Llc, USA
SO U.S., 12 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-32
NCL 430331000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6143479	A	20001107	US 1999-449072	19991124
	EP 1081554	A1	20010307	EP 2000-118191	20000830
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	US 1999-151697P	P	19990831		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6143479	ICM	G03F007-32
	NCL	430331000
US 6143479	ECLA	G03F007/32A
EP 1081554	ECLA	G03F007/32A

AB An aqueous alkaline composition comprising at least one phosphonic acid, at least one polyglycol derivative and at least one glycol. The composition can be used as either a developer or a replenisher for either pos.-working or neg.-working alkaline developable lithog. **printing** plates, including **thermal** plates.
ST lithog **printing** plates developer
IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Pluriol P 600; developing system for alkaline-developable lithog. **printing** plates)
IT Lithographic plates
(developing system for alkaline-developable lithog. **printing** plates)
IT 305374-72-5, Akypo LF 6
RL: TEM (Technical or engineered material use); USES (Uses)
(Akypo LF 6; developing system for alkaline-developable lithog. **printing** plates)
IT 25322-69-4
RL: TEM (Technical or engineered material use); USES (Uses)
(Pluriol P 600; developing system for alkaline-developable lithog. **printing** plates)
IT 7664-38-2, Phosphoric acid, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(developing system for alkaline-developable lithog. **printing** plates)
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; GB 2082339 1982 CAPLUS
(2) Anon; GB 2276729 1994 CAPLUS
(3) Deboer; US 5491046 1996 CAPLUS
(4) Garth; US 4927741 1990 CAPLUS
(5) Haley; US 5340699 1994 CAPLUS
(6) Haley; US 5372907 1994 CAPLUS
(7) Haley; US 5466557 1995 CAPLUS
(8) Hall; US 5122243 1992 CAPLUS

STN search for 10765,797

(9) Matsumoto; US 4469776 1984 CAPLUS
(10) Miller; US 5766826 1998 CAPLUS
(11) Miller; US 5811221 1998 CAPLUS
(12) Miller; US 5851735 1998 CAPLUS
(13) Miller; US 5897985 1999 CAPLUS
(14) Miller; US 5914217 1999 CAPLUS
(15) Miller; US 5958655 1999 CAPLUS
(16) Mohr; US 4458005 1984 CAPLUS
(17) Walls; US 5368974 1994 CAPLUS
(18) Yamasue; US 4259434 1981 CAPLUS

L23 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:366013 CAPLUS
DN 133:24691
ED Entered STN: 01 Jun 2000
TI Radiation-sensitive composition and its application to **thermal** imageable **printing** plate
IN Hauck, Gerhard; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-004
ICS G03F007-033; G03F007-039; B41M005-40
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19850181	A1	20000531	DE 1998-19850181	19981030
	DE 19850181	C2	20031204		
	US 2002012878	A1	20020131	US 1999-429531	19991028
PRAI	DE 1998-19850181	A	19981030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19850181	ICM	G03F007-004
	ICS	G03F007-033; G03F007-039; B41M005-40
DE 19850181	ECLA	B41C001/10A
US 2002012878	ECLA	B41C001/10A

AB The radiation-sensitive composition comprises (i) a polymer binder, (ii) at least 1 compound capable of releasing an acid upon **thermal** development, (iii) at least 1 radiation-absorbing compound capable of converting the absorbed radiation into heat, and (iv) at least 1 crosslinkable multifunctional enol ether, wherein the binder is insol. in an aqueous alkali medium of ≤13.5 pH.
ST radiation sensitive compn photoresist binder **thermal** imageable **printing** plate
IT Lithographic plates
Photoimaging materials
Photoresists
(radiation-sensitive composition and its application to **thermal** imageable **printing** plate)
IT 134127-48-3 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dye in radiation-sensitive composition for forming **thermal** imageable **printing** plate)
IT 68900-98-1, MS PF6
RL: TEM (Technical or engineered material use); USES (Uses)

(acid generator in radiation-sensitive composition for forming **thermal** imageable **printing** plate)
IT 59269-51-1, PVP-S 2-27062/34-3
RL: TEM (Technical or engineered material use); USES (Uses)
(binder in radiation-sensitive composition for forming **thermal** imageable **printing** plate)
IT 130066-57-8, VEctomer 4010
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinkable multifunctional enol ether in radiation-sensitive composition for forming **thermal** imageable **printing** plate)
IT 139301-16-9, CD 1012
RL: TEM (Technical or engineered material use); USES (Uses)
(photoacid generator in radiation-sensitive composition for forming **thermal** imageable **printing** plate)
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate of **thermal** imageable **printing** plate)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; DE 19729067 A CAPLUS

L23 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:819308 CAPLUS
DN 132:71387
ED Entered STN: 30 Dec 1999
TI **Thermal** imaging material for lithographic plate preparation
IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith; Savariar-Hauck, Celin; **Timpe, Hans-joachim**; McCullough, Christopher D.
PA Kodak Polychrome Graphics Llc, USA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B41M
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
	JP 2002518715	T2	20020625	JP 2000-555763	19990608
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A	19990429		
	EP 1999-928429	A3	19990608		
	WO 1999-US12689	W	19990608		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9967097	ICM	B41M
WO 9967097	ECLA	B41C001/10A
US 6352812	ECLA	B41C001/10A

STN search for 10765,797

AB A **thermal** imaging material which can be imaged by imagewise exposure with an IR laser or a **thermal** head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a photothermal conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a **thermal** head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a photothermal conversion material.

ST IR laser **thermal** imaging material lithog plate prepn

IT Lithographic plates
(IR-laser-sensitive **thermal** imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT **Thermal printing** materials
(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Special Black 250; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy-containing, T 71; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(dimethylmaleimido-containing, AK 128; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT Recording materials
(**thermal**, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)
RL: TEM (Technical or engineered material use); USES (Uses)
(A 21; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate 9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66 27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction products with mesitylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3 253270-56-3, Carboset 500 253272-47-8, Nega 107
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 9002-84-0

RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 58748-38-2
RL: TEM (Technical or engineered material use); USES (Uses)
(National Starch 28-2930; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-35-4, SD 140
RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

IT 58206-31-8
RL: TEM (Technical or engineered material use); USES (Uses)
(Scripset 540, Scripset 550; IR-laser-sensitive **thermal** imaging materials for lithog. plate preparation with polymer layers containing)

L23 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:184195 CAPLUS
DN 130:215895
ED Entered STN: 22 Mar 1999
TI **Thermal** lithographic **printing** plate
IN Nguyen, My T.; Merchant, Nishith; Shimazu, Ken-ichi; Pappas, Peter S.; Hallman, Robert W.; Kesselman, Jerome P.; Savariar-Hauck, Celin; Hauck, Gerhard; **Timpe, Hans-Joachim**
PA Kodak Polychrome Graphics LLC, USA
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B41C001-10
ICS B41M005-36; G03F007-004; G03F007-023
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9911458	A1	19990311	WO 1998-US16886	19980814
	W: CA, CN, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6060217	A	20000509	US 1997-922190	19970902
	EP 939698	A1	19990908	EP 1998-939401	19980814
	EP 939698	B1	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 250497	E	20031015	AT 1998-939401	19980814
	ES 2206975	T3	20040516	ES 1998-939401	19980814
PRAI	US 1997-922190	A	19970902		
	WO 1998-US16886	W	19980814		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9911458	ICM	B41C001-10
	ICS	B41M005-36; G03F007-004; G03F007-023
US 6060217	ECLA	B41C001/10A; B41M005/36S

AB A method for directly imaging a lithog. **printing** surface using IR radiation without the requirement of pre- or post-UV exposure or heat treatment employs a **printing** plate which contains a support with a hydrophilic surface overcoated with an imaging layer. The imaging layer

contains at least one polymer having bonded pendent groups which are hydroxy, carboxylic acid, tert-butyl-oxycarbonyl, sulfonamide, amide, nitrile, urea, or combinations thereof as well as an IR-absorbing compound The imaging layer may contain a second polymer which has bonded pendent groups which are 1,2-naphthoquinone diazide, hydroxy, carboxylic acid, sulfonamide, hydroxymethyl amide, alkoxymethyl amide, nitrile, maleimide, urea, or combinations thereof. The imaging layer may also contain a visible absorption dye, a solubility inhibiting agent, or both. In practice, the imaging layer is imagewise exposed to IR radiation to produce exposed image areas in the imaged layer which have transient solubility in aqueous alkaline developing solution so that solubility is gradually lost over a period of time until the imaged areas become as insol. as non-imaged areas. Within a short time period of the imaging exposure, the imaged layer is developed with an aqueous alkaline developing solution to form the lithog. **printing** surface. In this method, the IR radiation preferably is laser radiation which is digitally controlled.

ST **thermal** lithog plate IR laser naphthoquinonediazide

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Bu ether; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT Lithographic plates
(IR laser-sensitive **thermal** recording materials containing naphthoquinonediazides for preparation of)

IT **Thermal printing** materials
(IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)

IT Recording materials
(**thermal**, IR laser-sensitive; containing naphthoquinonediazides for preparation of lithog. plates)

IT 139301-16-9, CD 1012
RL: TEM (Technical or engineered material use); USES (Uses)
(CD 1012; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT 2185-86-6, Victoria Blue R 2390-59-2, Ethyl violet 2390-60-5, Victoria Blue BO 5496-71-9, ADS 1060A-IR 9003-35-4D, Phenol-formaldehyde polymer, Bu ether 9004-38-0, Cellulose acetate phthalate 9016-83-5, SD 140A 14233-37-5, Solvent Blue 36 17354-14-2, Solvent Blue 35 24979-70-2, Poly(4-hydroxystyrene) 24979-71-3, 4-Hydroxystyrene-methyl methacrylate copolymer 26284-14-0, Methacrylic acid-butyl methacrylate copolymer 26323-01-3 27029-76-1, PD 140A 55854-33-6, Butyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 56793-67-0, Methacrylic acid-butyl methacrylate-methyl methacrylate-styrene copolymer 58748-38-2, Resyn 28-2930 68778-01-8, Ethyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-styrene copolymer 161003-85-6, 2-Hydroxyethyl methacrylate-vinylphenol copolymer 181658-68-4, GP 7550 187683-87-0, Epolite IV 62B 208046-03-1, Methacrylic acid-N-methoxymethylmethacrylamide-2-phenylethyl methacrylate copolymer 220970-43-4, Epolite III 178 220970-44-5, Uravar FN 6 220970-76-3, Spectra IR 830A 220971-24-4, PMP 65 220971-25-5, PMP 92 220971-33-5, ST 798
RL: TEM (Technical or engineered material use); USES (Uses)
(IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

IT 220937-57-5, Polychrome 3000
RL: TEM (Technical or engineered material use); USES (Uses)
(Polychrome 3000; IR laser-sensitive **thermal** recording materials for lithog. plate preparation containing)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

STN search for 10765,797

RE
(1) Agfa-Gevaert; GB 1245924 A 1971
(2) Agfa Gevaert NV; EP 0819980 A 1998 CAPLUS
(3) Fuji Photo Film Co Ltd; EP 0780239 A 1997 CAPLUS
(4) Gal, C; US 5641608 A 1997 CAPLUS
(5) Haley, N; US 5340699 A 1994 CAPLUS
(6) Hoare, R; WO 9739894 A 1997 CAPLUS
(7) Mitsubishi Chem Corp; EP 0823327 A 1998 CAPLUS

L24 ANSWER 1 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:14709 CAPLUS
DN 142:123207
ED Entered STN: 07 Jan 2005
TI 1-4-dihydropyridine-containing IR-sensitive composition and use thereof for the production of imageable elements
IN **Timpe, Hans-Joachim**; Wittig, Tobias; Huang, Jiangbing; Mueller, Ursula
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
FAN.CNT 1

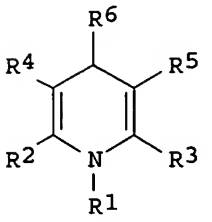
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005001571	A2	20050106	WO 2004-EP6184	20040608
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10326326	A1	20050113	DE 2003-10326326	20030611
PRAI DE 2003-10326326	A	20030611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005001571	ICM	G03F007-00

GI

STN search for 10765,797



I

AB Disclosed is the 1-4-dihydropyridine-containing IR-sensitive composition comprising
(a) at least one substance capable of absorbing IR radiation, (b) at least one compound capable of forming free radials, and (c) at least one 1,4-dihydropyridine derivative I (R1 = H, etc.; R2,3 = alkyl, etc.; R4,5 = CN, etc.; and R6 = alkyl, aryl, etc.).

ST dihydropyridine IR absorber compn lithog **printing** plate **photopolymn** initiator

IT Recrystallization
(1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT Optical materials
(IR absorbers; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT IR materials
(absorbers; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT Lithographic plates
(**photopolymn.** initiator; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT Polymerization catalysts
(**photopolymn.**; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT 21835-70-1P 70008-26-3P 70677-78-0P 111462-14-7P
RL: NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT 548-62-9, Basonyl violet 610
RL: NUU (Other use, unclassified); USES (Uses)
(IR absorber; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-1,3,5-triazine 6542-67-2 17025-47-7, Tribromomethylphenylsulfone 24504-22-1, 2-Phenyl-4,6-bis(trichloromethyl)-s-triazine 199444-11-6 269401-43-6 292047-58-6
RL: CAT (Catalyst use); USES (Uses)
(**photopolymn.** initiator; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-63-0, 2-Propanol, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent for recrystn.; 1-4-dihydropyridine-containing IR-sensitive composition for lithog. **printing** plate)

L24 ANSWER 2 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

STN search for 10765,797

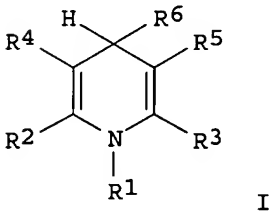
AN 2004:1127643 CAPLUS
DN 142:82328
ED Entered STN: 24 Dec 2004
TI Radiation-sensitive compositions comprising a 1,4-dihydropyridine sensitizer and imageable elements based thereon
IN **Timpe, Hanz-Joachim**; Baumann, Harald
PA Kodak Polychrome Graphics GmbH, Germany
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G03F007-031
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004111731	A1	20041223	WO 2004-EP6185	20040608
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10326324	A1	20050105	DE 2003-10326324	20030611
PRAI DE 2003-10326324	A	20030611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004111731	ICM	G03F007-031
WO 2004111731	ECLA	G03F007/031
DE 10326324	ECLA	G03F007/031

GI



I

AB Radiation-sensitive composition comprising: (a) one or more types of monomers and/or oligomers and/or polymers, each comprising at least one ethylenically unsatd. group accessible to a free-radical polymerization, (b) at least one sensitizer, (c) at least one coinitiator capable of forming free radicals together with the sensitizer (b) and selected from hexaarylbiimidazoles; and (d) optionally one or more components selected from alkali-soluble binders, dyes, exposure indicators, plasticizers, chain transfer agents, leuco dyes, surfactants, inorg. fillers and thermo-polymerization inhibitors, characterized in that the at least one

sensitizer is a 1,4-dihydropyridine derivative of the formula I (R1 =H, C(O)OR7, alkyl group, aryl group, aralkyl group; R2,3 = alkyl, aryl, CN, H; R4,5 = C(O)OR7, C(O)R7, C(O)NR8R9; R2-5 = Ph ring or heterocyclic rings; R6 =alkyl, aryl, aralkyl, etc.; R7-9 = H, aryl, aralkyl, alkyl)which does not contain any nitro groups bonded to an aromatic ring.

ST radiation sensitive compn dihydropyridine sensitizer lithog **printing**

IT Lithography
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for)

IT **Photographic** sensitizers
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for lithog. **printing**)

IT 100-52-7, Benzaldehyde, reactions 105-45-3, Methylacetoacetate 126-81-8, 5,5-Dimethyl-1,3-cyclohexanedione
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 1,4-dihydropyridine sensitizer for lithog. **printing**)

IT 2769-21-3P 21835-70-1P 70677-78-0P 111462-14-7P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(radiation-sensitive compns. comprising 1,4-dihydropyridine sensitizer for lithog. **printing**)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Grossa, M; US 4595651 A 1986 CAPLUS

(2) Technische Hochschule Carl Schorlemmer Leuna-Merseburg; DD 287796 A 1991 CAPLUS

L24 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:870901 CAPLUS

DN 141:372781

ED Entered STN: 21 Oct 2004

TI Use of N-imine in heat-sensitive positive-working coating material for manufacturing offset lithographic **printing** plate

IN **Timpe, Hans-Joachim**; Mueller, Ursula

PA Kodak Polychrome Graphics G.m.b.H., Germany

SO Ger. Offen., 16 pp.
CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-039
ICS B41C001-05

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 10312204	A1	20041021	DE 2003-10312204	20030319
PRAI DE 2003-10312204		20030319		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10312204	ICM	G03F007-039
	ICS	B41C001-05
DE 10312204	ECLA	B41C001/10A

OS MARPAT 141:372781

AB The title heat-sensitive material comprises (A) an optionally pretreated support and (B) a pos.-working heat-sensitive coating layer containing (i) at least one phenolic resin and (ii) at least one N-imine. The material is

sensitive to 750-1300 nm wavelength. There are 4 synthesis examples of N-imine compds.
ST imine heat sensitive pos working coating material lithog plate
IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT **Photoimaging** materials
(**photopolymerizable**; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT Lithographic plates
(presensitized; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT 57-13-6, Urea, reactions 93-89-0, Ethylbenzoate 98-59-9, 4-Toluenesulfonyl chloride 100-39-0, Benzylbromide 108-24-7, Acetic anhydride 584-13-4, 4-Amino-1,2,4-triazole 589-15-1, 4-Bromobenzylbromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT 13213-82-6P 32585-76-5P 35224-59-0P 35224-65-8P 35224-79-4P 131140-65-3P 777090-55-8P, 1-(4-Bromobenzyl)-4-acetamino-1,2,4-triazoliumbromide 777090-58-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT 49558-86-3P 777090-57-0P 777090-60-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of N-imine; use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
IT 27029-76-1, Durite PD 140A 100346-90-5, Alnovol SPN 452 778593-39-8, Alnovol SPN 460
RL: TEM (Technical or engineered material use); USES (Uses)
(use of N-imine in heat-sensitive pos.-working coating material for manufacturing offset lithog. **printing** plate)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; EP 1279519 A2 CAPLUS
(2) Anon; DE 3527890 A1 CAPLUS

L24 ANSWER 4 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:738339 CAPLUS
DN 141:251406
ED Entered STN: 10 Sep 2004
TI Fabrication of imageable elements for imaging by means of UV excimer laser irradiation
IN **Timpe, Hans-Joachim**; Mueller, Ursula
PA Kodak Polychrome Graphics GmbH, Germany
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-00
ICS G03F007-20; G03F007-021
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76

STN search for 10765,797

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10304667	A1	20040909	DE 2003-10304667	20030205
PRAI	DE 2003-10304667		20030205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10304667	ICM	G03F007-00
	ICS	G03F007-20; G03F007-021

AB A development-free procedure for imageable elements is described, wherein the UV-sensitive layer comprises a polyvinyl acetal copolymer and a diazonium polycondensation product; the procedure comprises imagewise irradiation with UV light of a maximum wavelength of 310 nm and an energy of ≥200 mJ/cm2 for an irradiation duration of nanoseconds and a following total exposure with light of a wavelength between 350 and 500 nm and an energy of ≥150 mJ/cm 2 for an irradiation duration of seconds. The elements are suitable for **printing** plates or electronic device fabrication.

ST imageable element **photopolymerizable** imaging UV excimer laser **printing** plate; electronic device fabrication **photoimaging** UV excimer laser

IT Electronic device fabrication
Photolithography
Photoresists
(fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(**photopolymerizable photoimaging** composition; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT **Photoimaging** materials
(**photopolymerizable**; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT **Printing** plates
(presensitized; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

IT 223745-61-7, NW 1428
RL: TEM (Technical or engineered material use); USES (Uses)
(**photopolymerizable photoimaging** composition; fabrication of imageable elements for imaging by means of UV excimer laser irradiation)

L24 ANSWER 5 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:392172 CAPLUS
DN 140:397389
ED Entered STN: 14 May 2004
TI Hetero-substituted aryl acetic acid co-initiators for IR-sensitive compositions for manufacturing negative-working **printing** plate precursors
IN Munnelly, Heidi M.; West, Paul R.; **Timpe, Hans-joachim**; Muller, Ursula; Huang, Jianbing
PA USA
SO U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03F007-038
ICS G03F007-11

STN search for 10765,797

NCL 430270100; 430273100; 430281100; 430286100; 430302000; 430309000;
430434000; 430494000; 430944000; 430945000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004091811	A1	20040513	US 2002-283757	20021030
	US 6309792	B1	20011030	US 2000-690898	20001017
	US 2003003399	A1	20030102	US 2001-832989	20010411
	JP 2003012713	A2	20030115	JP 2002-107119	20020409
	US 2002197564	A1	20021226	US 2002-131866	20020425
	WO 2004041544	A1	20040521	WO 2003-US33820	20031023
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004259027	A1	20041223	US 2004-847708	20040517
PRAI	WO 2000-EP1349	A1	20000218		
	US 2000-690898	A2	20001017		
	US 2001-832989	A	20010411		
	US 2001-40241	B2	20011109		
	US 2002-66874	A2	20020204		
	US 2002-131866	A2	20020425		
	US 2002-217005	A2	20020812		
	US 2002-283757	A	20021030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004091811	ICM	G03F007-038
	ICS	G03F007-11
	NCL	430270100; 430273100; 430281100; 430286100; 430302000; 430309000; 430434000; 430494000; 430944000; 430945000
US 6309792	ECLA	B41C001/10A; B41M005/36S
US 2003003399	ECLA	B41C001/10A
US 2002197564	ECLA	B41C001/10A
US 2004259027	ECLA	B41C001/10A; B41M005/36S; G03F007/031

OS MARPAT 140:397389
AB The invention relates to an IR-sensitive composition comprising, in addition to a polymeric binder, a free radical polymerizable system consisting of at least one member selected from unsatd. free radical polymerizable monomers, oligomers which are free radical polymerizable, and polymers containing C=C bonds in the back bone and/or in the side chain groups and an initiator system, wherein the initiator system comprises the following components: (a) at least one material capable of absorbing IR radiation, (b) at least one compound capable of producing radicals and (c) at least one hereto-substituted arylacetic acid co-initiator compound such as phenoxyacetic acid, (2-methoxyphenoxy)acetic acid, etc.
ST hetero substituted aryl acetate initiator IR compn lithog plate
IT Lithographic plates
(IR-sensitive, precursor; hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns. for manufacturing neg.-working **printing** plate precursors)

STN search for 10765,797

IT Light-sensitive materials
(IR; hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns. for manufacturing neg.-working **printing** plate precursors)
IT Polymerization catalysts
(**photopolymn.**; hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns. for manufacturing neg.-working **printing** plate precursors)
IT 87-51-4, Indole-3-acetic acid, uses 103-01-5, N-Phenylglycine 122-59-8, Phenoxyacetic acid 1878-85-9, (2-Methoxyphenoxy)acetic acid 95735-63-0, 3,4-Dimethoxyphenylthioacetic acid
RL: CAT (Catalyst use); USES (Uses)
(hetero-substituted aryl acetic acid co-initiators for ir-sensitive compns.)

L24 ANSWER 6 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:633579 CAPLUS
DN 139:171302
ED Entered STN: 15 Aug 2003
TI On-press developable IR sensitive **printing** plates
IN **Timpe, Hans-Joachim**; Von Gyldenfeldt, Friederike
PA Kodak Polychrome Graphics LLC, USA
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B41M005-36
ICS B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003066338	A1	20030814	WO 2003-US3256	20030204
	W: BR, CN, JP				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
	US 6309792	B1	20011030	US 2000-690898	20001017
	US 2003157433	A1	20030821	US 2002-66874	20020204
	US 6846614	B2	20050125		
	JP 2003012713	A2	20030115	JP 2002-107119	20020409
	US 2002197564	A1	20021226	US 2002-131866	20020425
	EP 1478516	A1	20041124	EP 2003-710835	20030204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, HU, SK				
	BR 2003007435	A	20041228	BR 2003-7435	20030204
PRAI	US 2002-66874	A	20020204		
	WO 2000-EP1349	A1	20000218		
	US 2000-690898	A2	20001017		
	US 2001-832989	A	20010411		
	WO 2003-US3256	W	20030204		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003066338	ICM	B41M005-36
	ICS	B41C001-10
US 6309792	ECLA	B41C001/10A; B41M005/36S
US 2002197564	ECLA	B41C001/10A

OS MARPAT 139:171302
AB The IR-sensitive compns. suitable for the manufacture of **printing** plates developable on-press, comprise: (a) a first polymeric binder which

does not comprise acidic groups having a pKa value less than or equal to 8;. (b) a second polymeric binder comprising polyether groups;. (c) an initiator system comprising (i) at least one compound capable of absorbing IR radiation selected from triarylamine dyes, thiazolium dyes, indolium dyes, oxazolium dyes, cyanine dyes, polyaniline dyes, polypyrrole dyes, polythiophene dyes and phthalocyanine pigments; (ii) at least one compound capable of producing radicals selected from polyhaloalkyl-substituted compds.; and (iii) at least one polycarboxylic acid represented by the following formula IR4-(CR5R6)r-Y-CH2COOH (I) wherein Y is selected from the group consisting of O, S and NR7, each of R4, R5 and R6 is independently selected from the group consisting of hydrogen, C1-C4 alkyl, substituted or unsubstituted aryl, -COOH and NR8CH2COOH, R7 is selected from the group consisting of hydrogen, C1-C6 alkyl, -CH2CH2OH, and C1-C5 alkyl substituted with -COOH, R8 is selected from the group consisting of -CH2COOH, -CH2OH and -(CH2)2N(CH2COOH)2 and r is 0, 1, 2 or 3, with the proviso that at least one of R4, R5, R6, R7 and R8 comprises a -COOH group or salts thereof;. (d) a free radical polymerizable system comprising at least one member selected from unsatd. free radical polymerizable monomers, oligomers which are free radical polymerizable and polymers containing C=C bonds in the back bone and/or in the side chain groups, wherein the following inequality is met: oxi<redii+1.6 eV with oxi=oxidation potential of component (i) in eV, redii=reduction potential of component (ii) in eV.

ST **printing** plate **photosensitive** IR dye triarylamine thiazolium indolium; on press **printing** plate; IR initiator dye

IT Polyurethanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(acrylates; on-press developable IR sensitive **printing** plates)

IT Pigments, nonbiological
(anthraquinone; on-press developable IR sensitive **printing** plates)

IT Amines, uses
RL: CAT (Catalyst use); USES (Uses)
(aryl, tertiary, dyes, initiator; on-press developable IR sensitive **printing** plates)

IT Polyanilines
RL: CAT (Catalyst use); USES (Uses)
(dyes, initiator; on-press developable IR sensitive **printing** plates)

IT Cyanine dyes
(initiator; on-press developable IR sensitive **printing** plates)

IT Leuco dyes
Printing plates
(on-press developable IR sensitive **printing** plates)

IT Polyoxyalkylenes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(on-press developable IR sensitive **printing** plates)

IT Polyurethanes, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polyester-, binder; on-press developable IR sensitive **printing** plates)

IT Conducting polymers
(polypyrroles, dyes, initiator; on-press developable IR sensitive **printing** plates)

IT Conducting polymers

(polythiophenes, dyes, initiator; on-press developable IR sensitive **printing** plates)
IT 9002-89-5, MOWIOL 4/98
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(MOWIOL 4/88; on-press developable IR sensitive **printing** plates)
IT 74-82-8D, Methane, triaryl derivative 81-88-9D, derivative 92-81-9D, 9,10-Dihydroacridine, derivative 135-67-1D, Phenoxazine, derivative 261-31-4D,
Thioxanthene, derivative
RL: CAT (Catalyst use); USES (Uses)
(dye; on-press developable IR sensitive **printing** plates)
IT 496-15-1D, Indoline, derivative 28589-79-9D, Thiazolium, derivative 30969-75-6D, Oxazoline, derivative
RL: CAT (Catalyst use); USES (Uses)
(dyes, initiator; on-press developable IR sensitive **printing** plates)
IT 142-73-4, Amino diacetic acid 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 3712-60-5, 2-(4-Chlorophenyl)-4,6-bis(trichloromethyl)-s-triazine 3987-53-9 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 17025-47-7, Tribromomethyl phenylsulfone 24504-22-1, 2-Phenyl-4,6-bis(trichloromethyl)-s-triazine 24687-55-6, 2,4,6-Tris(tribromomethyl)-s-triazine 205744-92-9 269401-43-6 292047-58-6 577791-85-6 577791-86-7
RL: CAT (Catalyst use); USES (Uses)
(on-press developable IR sensitive **printing** plates)
IT 9003-11-6, Ethylene oxide-propylene oxide copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(on-press developable IR sensitive **printing** plates)
IT 25232-42-2, Polyvinyl imidazole 58477-85-3, N,N'-Diallyl tartardiamide 115965-96-3, AIRVOL 203 139637-70-0, AIRVOL 603
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(oxygen-impermeable layer; on-press developable IR sensitive **printing** plates)
IT 112-85-6, Behenic acid 3061-75-4, Behenic acid amide
RL: TEM (Technical or engineered material use); USES (Uses)
(oxygen-impermeable layer; on-press developable IR sensitive **printing** plates)
IT 574-93-6D, Phthalocyanine, derivative
RL: CAT (Catalyst use); USES (Uses)
(pigments, initiator; on-press developable IR sensitive **printing** plates)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Fuji Photo Film Company Limited; EP 1106381 A 2001 CAPLUS
(2) Hauck, G; US 6309792 B1 2001

L24 ANSWER 7 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:376022 CAPLUS
DN 138:373439
ED Entered STN: 16 May 2003
TI Method for reuse of loaded developer
IN Fiebag, Ulrich; **Timpe, Hans-Joachim**; Tondock, Uwe; Vihs, Andreas
PA Kodak Polychrome Graphics, LLC, Germany
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent

STN search for 10765,797

LA English
IC ICM C02F001-52
NCL 210732000
CC 60-2 (Waste Treatment and Disposal)
Section cross-reference(s): 74
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003089669	A1	20030515	US 2001-992688	20011114
	US 6759185	B2	20040706		
	WO 2003042761	A1	20030522	WO 2002-US36549	20021113
	W: JP				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	EP 1444552	A1	20040811	EP 2002-789645	20021113
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	WO 2004095141	A1	20041104	WO 2003-EP4272	20030424
	W: CN, JP, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
PRAI	US 2001-992688	A	20011114		
	WO 2002-US36549	W	20021113		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003089669	ICM	C02F001-52
	NCL	210732000
US 2003089669	ECLA	G03F007/30W

AB A method for the refreshment and reuse of loaded developers used in lithog. **printing** is disclosed. A polyoxyalkylene derivative is added to a silicate-containing loaded developer. Insol. material is separated and the alkalinity level of the resulting essentially colorless liquid adjusted to produce a refreshed developer. The refreshed developer may be used to develop addnl. exposed imageable elements.

ST refreshment reuse loaded developer lithog **printing** polyoxyalkylene

IT Polyoxyalkylenes, reactions
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(derivs.; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Lithography
Photographic developers
(method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Polyoxyalkylenes, reactions
Polyoxyalkylenes, reactions
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Lithographic plates
(neg.-working; method for refreshment and reuse of loaded developers used in lithog. **printing**)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, imageable layer component; method for refreshment and reuse of loaded developers used in lithog. **printing**)

STN search for 10765,797

IT Monoamines
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(polyoxyalkylated; method for refreshment and reuse of loaded developers used in lithog. **printing**)
IT Wastewater treatment
(precipitation; method for refreshment and reuse of loaded developers used in
lithog. **printing**)
IT 1310-73-2, Sodium hydroxide, uses 1344-09-8, Sodium water glass
RL: TEM (Technical or engineered material use); USES (Uses)
(developer and replenisher component; method for refreshment and reuse of loaded developers used in lithog. **printing**)
IT 7647-01-0, Hydrochloric acid, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(for titration of developer alkalinity; method for refreshment and reuse of loaded developers used in lithog. **printing**)
IT 53208-22-3
RL: TEM (Technical or engineered material use); USES (Uses)
(imageable layer component; method for refreshment and reuse of loaded developers used in lithog. **printing**)
IT 107-15-3D, Ethylene diamine, reaction product with at least one C2-3 alkylene oxide 9003-11-6, Ethylene oxide propylene oxide copolymer 25322-68-3, Polyethylene oxide 25322-69-4, Pluriol p-600 37211-54-4, Triton cf32 109049-12-9, Synperonic T 304
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(method for refreshment and reuse of loaded developers used in lithog. **printing**)
IT 330988-79-9, Easyprint
RL: TEM (Technical or engineered material use); USES (Uses)
(method for refreshment and reuse of loaded developers used in lithog. **printing**)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; EP 0520793 1992 CAPLUS
(2) Anon; DE 4120075 1992 CAPLUS
(3) Anon; EP 0732628 1996 CAPLUS
(4) Anon; EP 0747773 1996 CAPLUS
(5) Fiebag; US 20030211429 A1 2003 CAPLUS
(6) Krikelis; US 3589261 A 1971
(7) Miki; US 4786417 A 1988 CAPLUS
(8) Ogawa; US 6153107 A 2000 CAPLUS
(9) Seeley; US 5811224 A 1998 CAPLUS
(10) Shibano; US 6247856 B1 2001
(11) Uehara; US 4961859 A 1990 CAPLUS
(12) Yamamoto; US 5124736 A 1992
(13) Yamasue; US 4259434 A 1981 CAPLUS

L24 ANSWER 8 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:522484 CAPLUS
DN 137:85989
ED Entered STN: 12 Jul 2002
TI Radiation-sensitive compositions comprising polyvinyl acetals having azido groups for lithographic **printing** plate
IN **Timpe, Hans-joachim**; Muller, Ursula
PA Kodak Polychrome Graphics LLC, Germany
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO

STN search for 10765,797

DT Patent
LA English
IC ICM G03F007-038
NCL 430270100
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

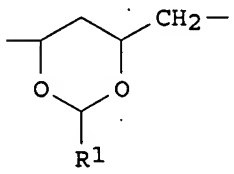
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002090566	A1	20020711	US 2000-751183	20001229
	US 6596460	B2	20030722		
PRAI	US 2000-751183		20001229		

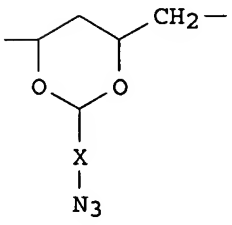
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002090566	ICM	G03F007-038
	NCL	430270100

GI



I



II

AB A polyvinyl acetal copolymer compound comprises the units A, B, C and D, where A = -CH2-CHOCOR- (R = H, C1-6-alkyl, -CH=CHCOOH, C6H5COOH) is present in an amount of 0.5 to 30 weight%; B = -CH2CHOH- is present in an amount of 5 to 35 weight%; C is defined by the formula I (R1 = C1-4-alkyl, optionally substituted by an acid, Ph, Z-NR2-CO-Y-COOH (Z = aliphatic, aromatic or araliph. spacer group; R2 = H, aliphatic, aromatic, araliph. moiety; Y = saturated or unsatd. chain- or ring-shaped spacer group)) and present in an amount of 10 to 55 weight%, and may have one or more occurrences in the copolymer with various moieties R1 independent of one another; D is defined by the formula II (X = C1-6-alkylene; 5 or 6 membered saturated carbocyclic moiety optionally substituted with C1-4-alkyl, C1-4-alkoxy, halogen; 5 or 6 membered saturated heterocyclic moiety; C6H5(R3)n (n = 0-4, R3 = C1-4-alkyl, halogen, C1-4-alkoxy)) and present in an amount of 10 to 40 weight%. A radiation-sensitive composition useful in a lithog. **printing** plate comprises (i) the above-described polyvinyl acetal copolymer; and (ii) a light-to-heat transformer compound The object of the present invention is to provide polymers for radiation-sensitive compns. which ensure a good adhesion to normal aluminum substrates and thus lead to an acceptable number of prints produced without affecting ink receptivity.

ST lithog **printing** plate aluminum substrate **photosensitive**

compn polyvinyl acetal
IT Polyvinyl butyrals
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(azido-benzals; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
IT Lithographic plates
(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
IT 459-57-4, 4-Fluoro benzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of polymer radiation-sensitive compns. for lithog. **printing** plate)
IT 24173-36-2DP, 4-Azido benzaldehyde, cyclic acetals with poly(vinyl alc.)
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(in preparation of polymer radiation-sensitive compns. for lithog. **printing** plate)
IT 108-31-6DP, Maleic anhydride, reaction products with polyvinyl butyral and azido benzaldehyde or propion aldehyde
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; radiation-sensitive compns. comprising polyvinyl acetals having azido groups for lithog. **printing** plate)

L24 ANSWER 9 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:839471 CAPLUS
DN 136:29085
ED Entered STN: 19 Nov 2001
TI IR sensitive layers for manufacturing of offset **printing** plates
AU **Timpe, H.-J.**
CS Abteilung F + E, Kodak Polychrome Graphics GmbH, Osterode, D-37520, Germany
SO Materialwissenschaft und Werkstofftechnik (2001), 32(10), 785-788
CODEN: MATWER; ISSN: 0933-5137
PB Wiley-VCH Verlag GmbH
DT Journal; General Review
LA German
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB A review with refs. For the formulation of IR sensitive compns. for offset **printing** plates, 2 different modes are known to use the energy stored after the absorption of an IR **photon** in the excited state of an absorbing mol. A phys. mode is based on generated heat after internal crossing of the excited state. In contrast, a chemical mode proceeds via formation of reactive intermediates as consequence of the IR absorption. Such species can be generated either by thermal decomposition of a thermolabile component of the composition or by interaction between an excited state mol. of the IR absorber and a ground state mol. of a suited reaction partner. The heat generated by internal crossing is already used in com. available offset **printing** plates by coalescence or ablation processes. Single electron transfer reactions are processes of choice for a chemical deactivation of the excited state of IR absorbers. For a high efficiency of such processes, certain thermodn. and kinetic prerequisites must be fullfilled. Electron deficient mols. such

as onium salts are well suited as reaction partners for excited states of IR absorbers.
ST review IR sensitive layer manufg offset **printing** plate
IT Optical materials
(IR absorbers; IR sensitive layers for manufacturing of offset **printing** plates)
IT Lithographic plates
(offset; IR sensitive layers for manufacturing of offset **printing** plates)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; WO 0048836
(2) Anon; EP 0825927 CAPLUS
(3) Anon; DE 19648313 CAPLUS
(4) Anon; DE 19906823 CAPLUS
(5) Anon; US 5491046 CAPLUS
(6) Anon; US 5919601 CAPLUS
(7) Anon; US 6060217 CAPLUS
(8) De Boer, C; Proceedings TAGA 1995, P29
(9) Huang, J; Proceedings NIP 1998, V14, P190
(10) Timpe, H; Proceedings NIP 1999, V15, P209
(11) Timpe, H; Top Current Chem 1990, V156, P165
(12) Van Damme, M; Proceedings ICPS 1998, P186

L24 ANSWER 10 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:677088 CAPLUS
DN 135:233934
ED Entered STN: 14 Sep 2001
TI Use of carboxyl group-containing acetal polymers in light-sensitive compositions and lithographic **printing** plates
IN Fuss, Robert; Baumann, Harald; Dwars, Udo; **Timpe, Hans-Joachim**
PA Clariant G.m.b.H., Germany; Kodak Polychrome Graphics G.m.b.H.
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM G03F007-033
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001067179	A2	20010913	WO 2001-EP2543	20010307
	WO 2001067179	A3	20020117		
	W: BR, CA, CN, JP, KR, NO, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	DE 10011096	A1	20011011	DE 2000-10011096	20000309
	BR 2001009106	A	20021203	BR 2001-9106	20010307
	EP 1292860	A2	20030319	EP 2001-929416	20010307
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	US 2003180654	A1	20030925	US 2002-221117	20021210
	US 6808858	B2	20041026		
PRAI	DE 2000-10011096	A	20000309		
	WO 2001-EP2543	W	20010307		

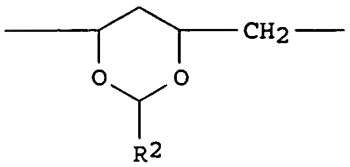
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

STN search for 10765,797

WO 2001067179	ICM	G03F007-033
DE 10011096	ECLA	G03F007/021P; G03F007/021P2; G03F007/032
US 2003180654	ECLA	G03F007/021P; G03F007/021P2; G03F007/032

GI



I

AB The present invention relates to a light-sensitive composition containing: (i) at least one diazonium polycondensation product or at least one system that can be radically polymerized and consists of **photo**-initiators and unsatd. compds. which can be radically polymerized or at least one hybrid system consisting of a diazonium polycondensation product and a system that can be radically polymerized and consists of **photo**-initiators and unsatd. compds. which can be radically polymerized, (ii) at least one binding agent and optionally one or more exposure indicators, one or more dyes for increasing the image contrast and one or more acids for stabilizing the light-sensitive composition which is characterized in that the binding agent essentially consists of units (A, B, C, D), whereby A corresponds to formula -CH2C(OCOR1)H- [R1 = H, C1-4-aliphatic hydrocarbon, aromatic], B corresponds to formula -CH2-C(OH)H-, C corresponds to formula I [R2 = H, C1-10-alkyl, aryl] and D corresponds to formula -CH2C(R3)(COOH)- [R3 = H, C1-10-alkyl]. The invention also relates to the use thereof for coating **printing** plates. The invention further relates to **printing** plates which are coated with said light-sensitive composition

ST **photopolymerizable** coating compn acetal polymer lithog **printing** plate

IT Coating materials
(light-sensitive; use of carboxyl group-containing acetal polymers in light-sensitive compns. and lithog. **printing** plates)

IT **Photoimaging** materials
(**photopolymerizable**; use of carboxyl group-containing acetal polymers in light-sensitive compns. and lithog. **printing** plates)

IT Lithographic plates
(use of carboxyl group-containing acetal polymers in light-sensitive compns. and lithog. **printing** plates)

IT Polyvinyl acetals
Polyvinyl butyrals
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(use of carboxyl group-containing acetal polymers in light-sensitive compns. and lithog. **printing** plates)

IT 3453-83-6D, reaction products with 3-methoxy-diphenylamine-4-diazoniumsulfate-4,4'-bis-methoxymethyldiphenylether copolymer
71510-01-5D, 3-Methoxydiphenylamine-4-diazonium sulfate-4,4'-bis(methoxymethyl)diphenyl ether copolymer, reaction products with mesitylene sulfonate

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)
(use of carboxyl group-containing acetal polymers in light-sensitive compns. and lithog. **printing** plates)

L24 ANSWER 11 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:569705 CAPLUS
DN 135:144696
ED Entered STN: 07 Aug 2001
TI Acetal copolymers and use thereof in **photosensitive** compositions
IN Gandini, Alessandro; Waig, Fang Sandrine; **Timpe, Hans-joachim**; Baumann, Harald
PA Kodak Polychrome Graphics Llc, USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03F007-021
ICS C08F008-00
NCL 430157000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6270938	B1	20010807	US 2000-590930	20000609
	EP 1162209	A1	20011212	EP 2001-112097	20010529
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002080528	A2	20020319	JP 2001-174608	20010608
PRAI	US 2000-590930	A	20000609		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6270938	ICM	G03F007-021
	ICS	C08F008-00
	NCL	430157000
US 6270938	ECLA	C08F008/00+16/06; G03F007/021P2; G03F007/038S
EP 1162209	ECLA	C08F008/00+16/06; G03F007/021P2; G03F007/038S

AB The invention relates to acetal copolymers and **photosensitive** compns. containing such polymers suitable for lithog. **printing** plates. In particular, the invention relates to acetal copolymers containing furylvinylidene, thienylvinylidene or pyrrolylvinylidene.
ST acetal furylvinylidene thienylvinylidene pyrrolylvinylidene **photosensitive** polymer lithog **printing** plate
IT **Printing** (nonimpact)
(lithog.; **photosensitive** compns. suitable for lithog. **printing** plates containing acetal polymers)
IT Lithographic plates
(**photosensitive** compns. suitable for lithog. **printing** plates containing acetal polymers)
IT Polymers, preparation
Polyvinyl acetals
RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**photosensitive** compns. suitable for lithog. **printing** plates containing acetal polymers)
IT 147-14-8, Renol Blue B 2G-HW
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(Renol Blue B 2G-HW; synthesis of acetal copolymers and use in **photosensitive** compns. suitable for lithog. **printing** plates)

IT 57-55-6, 1,2-Propanediol, reactions 67-56-1, Methyl alcohol, reactions 78-93-3, MEK, reactions 27754-99-0, Poly(vinylphosphonic acid) 352000-83-0 352000-84-1
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(**photosensitive** compns. suitable for lithog. **printing** plates containing acetal polymers and)

IT 352000-80-7P 352000-81-8P
RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of acetal copolymers and use in **photosensitive** compns. suitable for lithog. **printing** plates)

IT 65022-02-8P 178860-72-5P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of acetal copolymers and use in **photosensitive** compns. suitable for lithog. **printing** plates)

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Anon; EP 104863 1984 CAPLUS
(3) Anon; CA 1172492 1984 CAPLUS
(4) Anon; EP 208145 1987 CAPLUS
(5) Anon; WO 8901871 1989 CAPLUS
(6) Anon; EP 368327 1990 CAPLUS
(7) Anon; EP 397375 1990 CAPLUS
(8) Anon; EP 487343 1992 CAPLUS
(9) Anon; EP 679950 1995 CAPLUS
(10) Anon; EP 996603 1998 CAPLUS
(11) Aoai; US 4741985 1988 CAPLUS
(12) Aoai; US 4877711 1989 CAPLUS
(13) Aoai; US 4950582 1990 CAPLUS
(14) Aoai; US 4983491 1991 CAPLUS
(15) Baumann; US 5925491 1999 CAPLUS
(16) Baumann, H; J prakt Chem/Chemiker-Zeitung 1994, V336, P377 CAPLUS
(17) Bosse; US 4387151 1983 CAPLUS
(18) Colo; US 2946638 1960
(19) Colo; US 3732105 1973 CAPLUS
(20) Jewett; US 2714066 1955 CAPLUS
(21) Joerg; US 5143813 1992 CAPLUS
(22) Kamiya; US 5112743 1992 CAPLUS
(23) Kita; US 4123276 1978 CAPLUS
(24) Kita; US 4845009 1989 CAPLUS
(25) Liu; US 4511640 1985 CAPLUS
(26) Matsumura; US 5260161 1993 CAPLUS
(27) Morrison; US 2179051 1939 CAPLUS
(28) Mueller-Hess; US 5187040 1993 CAPLUS
(29) Mueller-Hess; US 5206113 1993 CAPLUS
(30) Mueller-Hess; US 5238772 1993 CAPLUS
(31) Ohta; US 4304832 1981 CAPLUS
(32) Pawlowski; US 4631245 1986 CAPLUS
(33) Pawlowski; US 4840868 1989 CAPLUS
(34) Pawlowski; US 4940646 1990 CAPLUS
(35) Seitz; US 5176985 1993 CAPLUS
(36) Sekiya; US 4774161 1988 CAPLUS
(37) Steppan; US 3732106 1973 CAPLUS
(38) Tomiyasu; US 4731316 1988 CAPLUS

STN search for 10765,797

(39) Toyama; US 4687727 1987 CAPLUS
(40) Walls; US 4355096 1982 CAPLUS
(41) Walls; US 4618562 1986 CAPLUS
(42) Walls; US 4665124 1987 CAPLUS
(43) Walls; US 5169897 1992 CAPLUS
(44) Walls; US 5219699 1993 CAPLUS

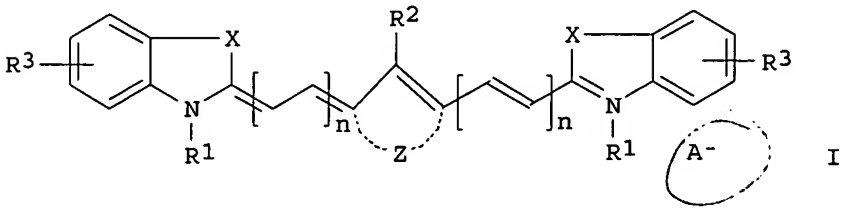
L24 ANSWER 12 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:642971 CAPLUS
DN 133:230415
ED Entered STN: 14 Sep 2000
TI IR-sensitive composition and manufacture of **printing** plate using the same
IN Hauck, Gerhard; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19906823	A1	20000914	DE 1999-19906823	19990218
DE 19906823	C2	20020314		
PRAI DE 1999-19906823		19990218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19906823	ICM	G03F007-038
DE 19906823	ECLA	B41C001/10A

OS MARPAT 133:230415
GI



I

AB The invention relates to the IR-sensitive composition including the initiator system comprised of (a) IR-dye represented by general formula I (X = S, O, NR, C(alkyl)2; R1 = alkyl; R2 = halo, SR, OR, NR2; R3 = H, alkyl, OR, SR, NR2, halo; A- = anion; Z = atoms for forming 5- to 6-membered ring; R = alkyl, aryl, H; n = 0-3), (b) polyhaloalkyl-substituted compound, and (c) polycarboxylic acid. The composition shows high light stability, **printing** durability, and developer-resistance.
ST **photopolymn** initiator IR sensitive compn **printing** plate manuf
IT **Photoimaging** materials
(**photopolymerizable**; IR-sensitive composition containing specified **photopolymn.** initiator system for manufacturing **printing**

plate)
IT Polymerization catalysts
(**photopolymn.**; IR-sensitive composition containing specified **photopolymn.** initiator system for manufacturing **printing** plate)
IT **Printing** plates
(**photosensitive**; IR-sensitive composition containing specified **photopolymn.** initiator system for manufacturing **printing** plate)
IT 1137-73-1, Anilinodiacetic acid 3584-23-4, 2-(4-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 17025-47-7, Tribromomethylphenylsulfone 145094-16-2, 2-Phenyl-4,6-bis(chloromethyl)-s-triazine 205744-92-9 269401-43-6 292047-58-6
RL: CAT (Catalyst use); USES (Uses)
(in **photopolymn.** initiator system in IR-sensitive composition for manufacturing **printing** plate)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; US 5496903 A CAPLUS
(2) Anon; DE 69222987 T2
(3) Anon; EP 730201 A1 CAPLUS

L24 ANSWER 13 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:366013 CAPLUS
DN 133:24691
ED Entered STN: 01 Jun 2000
TI Radiation-sensitive composition and its application to thermal imageable **printing** plate
IN Hauck, Gerhard; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-004
ICS G03F007-033; G03F007-039; B41M005-40
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19850181	A1	20000531	DE 1998-19850181	19981030
	DE 19850181	C2	20031204		
	US 2002012878	A1	20020131	US 1999-429531	19991028
PRAI	DE 1998-19850181	A	19981030		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19850181	ICM	G03F007-004
	ICS	G03F007-033; G03F007-039; B41M005-40
DE 19850181	ECLA	B41C001/10A
US 2002012878	ECLA	B41C001/10A

AB The radiation-sensitive composition comprises (i) a polymer binder, (ii) at least 1 compound capable of releasing an acid upon thermal development, (iii) at least 1 radiation-absorbing compound capable of converting the absorbed radiation into heat, and (iv) at least 1 crosslinkable multifunctional enol ether, wherein the binder is insol. in an aqueous alkali medium of ≤13.5 pH.
ST radiation sensitive compn **photoresist** binder thermal imageable

STN search for 10765,797

printing plate
IT Lithographic plates
Photoimaging materials
Photoresists
(radiation-sensitive composition and its application to thermal imageable **printing** plate)
IT 134127-48-3 134127-48-3
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dye in radiation-sensitive composition for forming thermal imageable **printing** plate)
IT 68900-98-1, MS PF6
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator in radiation-sensitive composition for forming thermal imageable **printing** plate)
IT 59269-51-1, PVP-S 2-27062/34-3
RL: TEM (Technical or engineered material use); USES (Uses)
(binder in radiation-sensitive composition for forming thermal imageable **printing** plate)
IT 130066-57-8, VEctomer 4010
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinkable multifunctional enol ether in radiation-sensitive composition for forming thermal imageable **printing** plate)
IT 139301-16-9, CD 1012
RL: TEM (Technical or engineered material use); USES (Uses)
(**photoacid** generator in radiation-sensitive composition for forming thermal imageable **printing** plate)
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate of thermal imageable **printing** plate)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; DE 19729067 A CAPLUS

L24 ANSWER 14 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:254092 CAPLUS
DN 132:294180
ED Entered STN: 20 Apr 2000
TI Poly(vinyl acetals) with imide groups and their use in **photosensitive** compositions
IN Baumann, Harald; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**
PA Kodak Polychrome Graphics G.m.b.H., Germany
SO Ger. Offen., 9 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08F226-06
ICS C08F216-02; C08F216-38
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 74
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19847616	A1	20000420	DE 1998-19847616	19981015
	EP 996037	A2	20000426	EP 1999-120000	19991014
	EP 996037	A3	20010221		
	EP 996037	B1	20030115		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6087066	A	20000711	US 1999-418284	19991014
PRAI	DE 1998-19847616	A	19981015		

STN search for 10765,797

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19847616	ICM	C08F226-06
	ICS	C08F216-02; C08F216-38
DE 19847616	ECLA	C08F008/00+16/06; G03F007/038S
EP 996037	ECLA	C08F008/00+16/06; G03F007/038S
US 6087066	ECLA	C08F008/00+16/06; G03F007/038S

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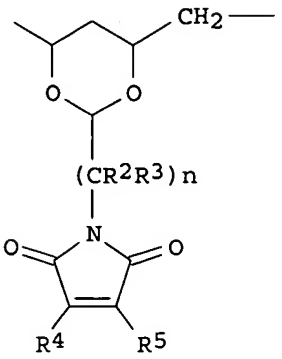
Q = 

AB The polymers, useful as binders in the manufacture of **printing** plates, comprise vinyl acetate units 0.5-20, vinyl alc. units 15-35, vinyl acetal units based on R1CHO [R1 = (carboxy-substituted) C1-4 alkyl, (un)substituted carboxyphenyl] 10-50, and Q units [R2, R3 = H, Me; R4, R5 = C1-4 alkyl, or R4R5 = C3-4 hydrocarbylene; n = 1-3] 25-70 weight%. Thus, 50 g Mowiol 8/88 was stirred for 15 h at 55-60° in a mixture of 220 g PrOH and 140 g H2O, then acidified and treated with 2.0 g MeCHO and 49.5 g N-(4,4-diethoxybutyl)-3,4-dimethylmaleimide to give a polymer (I). I 5.35, Renol Blue B2G-HW 0.3, and Quantacure ITX 0.3 g were dissolved in 100 mL solvent (MeOH 45, MeOCH2CH2OH 30, and MEK 25 volume%), filtered, spread on an anodized Al foil, and dried to give a copier film (dry weight .apprx.1 g/m2), which was irradiated through a neg. and developed to provide a **printing** plate capable of producing 35,000 offset copies of good quality.

ST polyvinyl maleimidoalkanal binder **photosensitive**; **printing** plate **photosensitive** binder

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
((dimethylmaleimido)butyrals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
((dimethylmaleimido)propionals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
((tetrahydrophthalimido)propionals; poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)

STN search for 10765,797

IT Lithographic plates
(offset; poly(vinyl acetals) with imide groups for use in **photosensitive** compns. for preparation of)
IT 181862-87-3P 181862-89-5P 264265-70-5P 264265-71-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)
IT 766-39-2 935-79-5, cis-4-Cyclohexene-1,2-dicarboxylic anhydride 6346-09-4, 4-Aminobutyraldehyde diethyl acetal 9002-89-5, Mowiol 5/88 22483-09-6, 2-Aminoacetaldehyde dimethyl acetal 25213-24-5, Vinyl acetate-vinyl alcohol copolymer 41365-75-7, 3-Aminopropionaldehyde diethyl acetal
RL: RCT (Reactant); RACT (Reactant or reagent)
(poly(vinyl acetals) with imide groups for use in **photosensitive** compns.)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Brem; US 5651986 A 1997 CAPLUS
(2) Burke; US 5552156 A 1996 CAPLUS
(3) Cohen; US 5276019 A 1994 CAPLUS
(4) Fleury; Spectrosc Biol Mol: Mod Trends 1997
(5) Green; US 5583034 A 1996 CAPLUS
(6) Jaxel; The Journal of Biological Chemistry 1991, V266(30), P20418 CAPLUS
(7) Leteurtre; Biochemistry 1993, V32, P8955 CAPLUS
(8) Shull; US 5677286 A 1997 CAPLUS

L24 ANSWER 15 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:819308 CAPLUS
DN 132:71387
ED Entered STN: 30 Dec 1999
TI Thermal imaging material for lithographic plate preparation
IN Shimazu, Ken-ichi; Patel, Jayanti; Saraiya, Shashikant; Merchant, Nishith; Savariar-Hauck, Celin; **Timpe, Hans-joachim**; McCullough, Christopher D.
PA Kodak Polychrome Graphics Llc, USA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B41M
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9967097	A2	19991229	WO 1999-US12689	19990608
	W: JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6352812	B1	20020305	US 1999-301866	19990429
	JP 2002518715	T2	20020625	JP 2000-555763	19990608
	EP 1506856	A2	20050216	EP 2004-78162	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	EP 1506857	A2	20050216	EP 2004-78163	19990608
	R: BE, DE, ES, FR, GB, IT, NL, SE				
PRAI	US 1998-90300P	P	19980623		
	US 1999-301866	A	19990429		
	EP 1999-928429	A3	19990608		
	WO 1999-US12689	W	19990608		

STN search for 10765,797

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9967097	ICM	B41M
WO 9967097	ECLA	B41C001/10A
US 6352812	ECLA	B41C001/10A

AB A thermal imaging material which can be imaged by imagewise exposure with an IR laser or a thermal head and suited for lithog. plate preparation comprises a hydrophilic substrate and a two-layer coating. The first layer of the coating comprises an aqueous solution-developable polymer mixture containing a **photothermal** conversion material which is contiguous to the hydrophilic substrate. The second layer of the coating comprises one or more non-aqueous solution-soluble polymers which are soluble or dispersible in a solvent which does not dissolve the first layer. The material is exposed with an IR laser or a thermal head and upon development of the imaged material in an aqueous solution, the exposed portions are removed exposing hydrophilic substrate surfaces receptive to conventional aqueous fountain solns. The unexposed portions contain ink-receptive image areas. The second layer may also contain a **photothermal** conversion material.

ST IR laser thermal imaging material lithog plate prepn

IT Lithographic plates
(IR-laser-sensitive thermal imaging materials with two polymer layers on hydrophilic substrates for preparation of)

IT Thermal **printing** materials
(IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Carbon black, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Special Black 250; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(carboxy-containing, T 71; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Polyvinyl acetals
RL: TEM (Technical or engineered material use); USES (Uses)
(dimethylmaleimido-containing, AK 128; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT Recording materials
(thermal, IR-laser-sensitive; with two polymer layers on hydrophilic substrates for lithog. plate preparation)

IT 9011-14-7, Poly(methyl methacrylate)
RL: TEM (Technical or engineered material use); USES (Uses)
(A 21; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-53-6, Polystyrene 9004-38-0, Cellulose acetate phthalate 9004-70-0, E950 9010-88-2, Acryloid B-82 25608-33-7, Acryloid B-66 27029-76-1, PD 140A 58229-85-9, Acryloid B-44 73546-46-0D, reaction products with mesitylenesulfonic acid 106209-33-0, SMA-1000 134127-48-3 253270-56-3, Carboset 500 253272-47-8, Nega 107

STN search for 10765,797

RL: TEM (Technical or engineered material use); USES (Uses)
(IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9002-84-0
RL: TEM (Technical or engineered material use); USES (Uses)
(MP 1100; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58748-38-2
RL: TEM (Technical or engineered material use); USES (Uses)
(National Starch 28-2930; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 9003-35-4, SD 140
RL: TEM (Technical or engineered material use); USES (Uses)
(PN 430, SD 140; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

IT 58206-31-8
RL: TEM (Technical or engineered material use); USES (Uses)
(Scripset 540, Scripset 550; IR-laser-sensitive thermal imaging materials for lithog. plate preparation with polymer layers containing)

L24 ANSWER 16 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:277534 CAPLUS
DN 128:315151
ED Entered STN: 14 May 1998
TI Amido-substituted acetal polymers and their use in **photosensitive** compositions and lithographic **printing** plates
IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin; **Timpe, Hans-Joachim**
PA Sun Chemical Corporation, USA
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C08F008-28
ICS C08F008-32; G03F007-021; G03F007-033
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 838478	A1	19980429	EP 1997-118533	19971024
	EP 838478	B1	20020227		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19644515	A1	19980625	DE 1996-19644515	19961025
	ZA 9700154	A	19970716	ZA 1997-154	19970108
	CA 2194723	AA	19980426	CA 1997-2194723	19970109
	US 5925491	A	19990720	US 1997-781313	19970109
	AT 213747	E	20020315	AT 1997-118533	19971024
PRAI	DE 1996-19644515	A	19961025		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 838478	ICM	C08F008-28
	ICS	C08F008-32; G03F007-021; G03F007-033
EP 838478	ECLA	C08F008/12+218/04; C08F008/28; C08F008/32+218/04; G03F007/021P2; G03F007/033
DE 19644515	ECLA	C08F008/12+218/04; C08F008/28; C08F008/32+218/04; G03F007/021P2; G03F007/033

STN search for 10765,797

US 5925491 ECLA C08F008/12+218/04; C08F008/28; C08F008/32+218/04; G03F007/021P2; G03F007/033

AB Vinyl binders with improved phys. properties for manufacture of lithog. **printing** plates contain ester, OH, acetal, and amide groups. A typical binder was manufactured by adding 0.7 g maleic anhydride (dissolved in 10 mL DMSO) and 0.9 g Ac2O (dissolved in 10 mL DMSO) to 10 g 96:4 (mol. ratio) vinyl alc.-vinylamine copolymer (mol. weight 36,000) dissolved in 80 mL DMSO at 10°, heating 30 min at 50°, adding 2.5 mL HCl (37%), 2.4 g AcH, and 3.9 g butyraldehyde dissolved in 10 mL DMSO in 30 min, and stirring 1 h at 50°.

ST amido acetal polymer binder lithog plate; butyralated vinyl alc vinylamine copolymer manuf; acetalated vinyl alc vinylamine copolymer manuf; acetylated vinyl alc vinylamine copolymer manuf; maleated vinyl alc vinylamine copolymer manuf

IT Binders
Lithographic plates
Photoimaging materials
(amido-substituted acetal polymers for binders in **photosensitive** compns. and lithog. **printing** plates)

IT 56-12-2DP, 4-Aminobutyric acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 74-89-5DP, Methylamine, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 75-07-0DP, Acetaldehyde, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes, preparation 93-97-0DP, Benzoic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-24-7DP, Acetic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 108-31-6DP, Maleic anhydride, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers and aldehydes 123-72-8DP, Butyraldehyde, reaction products with acid anhydrides, vinylamine-vinyl alc. copolymers, and aldehydes 150-13-0DP, 4-Aminobenzoic acid, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 156-87-6DP, 1-Amino-3-propanol, reaction products with hydrolyzed vinyl acetate-crotonic acid copolymer and aldehydes 25609-89-6DP, Mowilith CT5, hydrolyzed, reaction products with aldehydes and amines 29499-22-7DP, Vinylamine-vinyl alcohol copolymer, reaction products with aldehydes and acid anhydrides
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(amido-substituted acetal polymers for binders in **photosensitive** compns. and lithog. **printing** plates)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; PATENT ABSTRACTS OF JAPAN 1983, V007(253), PP-235
(2) Fuji Photo Film Co Ltd; EP 0208145 A CAPLUS
(3) Hoechst Celanese Corp; DE 3720687 A CAPLUS
(4) Hoechst Co American; EP 0211406 A CAPLUS
(5) Kuraray Kk; JP 58137834 A 1983 CAPLUS
(6) Pinschmidt, R; US 5086111 A CAPLUS
(7) Sun Chemical Corp; EP 0752430 A CAPLUS
(8) Sun Chemical Corp; DE 19525050 A CAPLUS

L24 ANSWER 17 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:210775 CAPLUS
DN 128:237244
ED Entered STN: 15 Apr 1998
TI Water-soluble and oxygen-impermeable polymeric coatings for **printing** plates
IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin M.; Pappas, Socrates

STN search for 10765,797

Peter; **Timpe, Hans-Joachim**
PA Sun Chemical Corp., USA
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08F008-12
ICS C09D129-04; C09D131-02; G03F007-09
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9813394	A1	19980402	WO 1997-US17761	19970929
	W: US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19639897	A1	19980402	DE 1996-19639897	19960927
	ZA 9708728	A	19980327	ZA 1997-8728	19970929
	EP 917544	A1	19990526	EP 1997-910760	19970929
	EP 917544	B1	20021218		
	R: BE, DE, ES, FR, GB, IT, NL				
PRAI	DE 1996-19639897	A	19960927		
	WO 1997-US17761	W	19970929		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9813394	ICM	C08F008-12
	ICS	C09D129-04; C09D131-02; G03F007-09

AB Water-soluble oxygen-impermeable coatings possessing high **photosensitivity**, good resolution, good ink receptivity after development, long shelf live and good adhesion comprise repeating units CH2CH(OH), CH2CH(OCOR), and X (R = C1-8 alkyl; X = amino group connected to the polymer by a spacer or directly). The amine- and hydroxy-functional vinyl coatings are to be used in the production of lithog. **printing** plates. A polymer binder was prepared by reaction of Airvol 203 and 4-aminobutyraldehyde di-Me acetal.
ST amino hydroxy polymer binder coating; lithog **printing** plate coating binder; polyvinyl alc amino acetal reaction product
IT Lithographic plates
(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)
IT 100-10-7DP, 4-N,N-Dimethylaminobenzaldehyde, reaction products with poly(vinyl alc.) 122-07-6DP, reaction products with poly(vinyl alc.) 9002-89-5DP, reaction products with amino acetals 19060-15-2DP, 4-Aminobutyraldehyde dimethyl acetal, reaction products with poly(vinyl alc.) 115965-96-3DP, Airvol 203, reaction products with amino acetals
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)
IT 115965-96-3, Airvol 203 162747-25-3, Vinyl acetate-vinyl alcohol-vinylamine copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(water-soluble and oxygen-impermeable polymeric coatings for **printing** plates)
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Agency Of Ind Science & Technol; JP 55023163 A 1980 CAPLUS
(2) Agfa Gevaert Ag; EP 0627656 A 1994 CAPLUS

STN search for 10765,797

(3) Agfa Gevaert Ag; DE 4325015 A 1995 CAPLUS
(4) Air Prod & Chem; EP 0339371 A 1989 CAPLUS
(5) Air Prod & Chem; DE 4034543 A 1991 CAPLUS
(6) Air Prod & Chem; DE 19516435 A 1995 CAPLUS
(7) Anon; PATENT ABSTRACTS OF JAPAN 1980, V004(038), PC-004
(8) Anon; PATENT ABSTRACTS OF JAPAN 1980, V004(050), PC-007
(9) Anon; PATENT ABSTRACTS OF JAPAN 1987, V011(048), PM-561
(10) Anon; PATENT ABSTRACTS OF JAPAN 1997, V097(003)
(11) Fuji Photo Film Co Ltd; JP 08310123 A 1996 CAPLUS
(12) Kuraray Co Ltd; JP 61211081 A 1986 CAPLUS
(13) Minnesota Mining & Mfg; EP 0752622 A 1997 CAPLUS
(14) Priest; US 2748103 A 1952 CAPLUS
(15) Sekisui Chem Co Ltd; JP 55012171 A 1980
(16) Sun Chemical Corp; EP 0752430 A 1997 CAPLUS
(17) Sun Chemical Corp; EP 0757061 A 1997 CAPLUS
(18) Wacker Chemie Gmbh; EP 0632096 A 1995 CAPLUS

L24 ANSWER 18 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:215596 CAPLUS
DN 126:205500
ED Entered STN: 03 Apr 1997
TI Sulfonamide-substituted acetal polymer and its use in **photosensitive** composition and lithographic **printing** plate
IN **Timpe, Hans-Joachim**; Dwars, Udo; Baumann, Harald; Savariar-Hauck, Celin
PA Sun Chemical Corp., USA
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08F216-38
ICS C08F008-14; C08F008-34; C08L029-14; G03F007-032; G03F007-021
ICI C08F216-38, C08F216-06, C08F218-08; C08L029-14, C08L029-04, C08L031-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

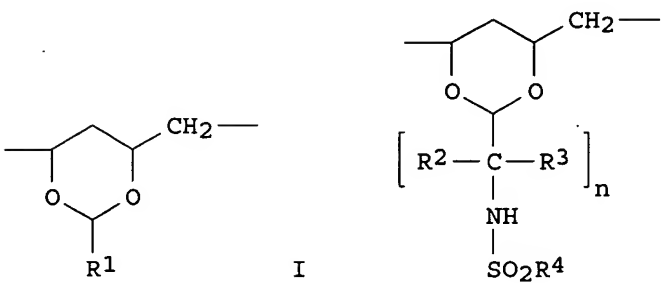
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19525050	A1	19970130	DE 1995-19525050	19950710
	DE 19525050	C2	19991111		
	CA 2180580	AA	19970111	CA 1996-2180580	19960705
	EP 757061	A2	19970205	EP 1996-111023	19960709
	EP 757061	A3	19980415		
	EP 757061	B1	20000913		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
	AT 196299	E	20000915	AT 1996-111023	19960709
	ZA 9605867	A	19970617	ZA 1996-5867	19960710
	US 5698360	A	19971216	US 1996-677703	19960710
	US 5849842	A	19981215	US 1997-917057	19970822
PRAI	DE 1995-19525050	A	19950710		
	US 1996-677703	A3	19960710		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19525050	ICM	C08F216-38
	ICS	C08F008-14; C08F008-34; C08L029-14; G03F007-032; G03F007-021
	ICI	C08F216-38, C08F216-06, C08F218-08; C08L029-14, C08L029-04, C08L031-04

STN search for 10765,797

DE 19525050 ECLA C08F008/34; G03F007/021P; G03F007/021P2; G03F007/033
EP 757061 ECLA C08F008/34; G03F007/021P; G03F007/021P2; G03F007/033
US 5849842 ECLA G03F007/021P; G03F007/033
GI



I II

AB The **photosensitive** composition binder comprises structural repeating units 0.5-15 CH2:CH(OCOCH3), 20-35 CH2:CH(OH), 20-50 I [R1 = Me, Et, Pr, iso-Pr] and 25-70 % II [n = 1-3; R2, R3 = H, CH3; R4 = alkyl, aryl].
ST sulfonamide acetal polymer **photosensitive** compn binder; lithog **printing** plate vinyl acetal
IT Polyvinyl acetals
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(aminoacetals; **photosensitive** composition binder)
IT Polyvinyl acetals
Polyvinyl butyrals
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(**photosensitive** composition binder)
IT Polyvinyl acetals
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(propionals; **photosensitive** composition binder)
IT Lithographic plates
Photoresists
(sulfonamide-substituted acetal polymer and its use in light-sensitive composition and lithog. **printing** plate)
IT 98-09-9, Benzenesulfonyl chloride 98-59-9, p-Toluenesulfonyl chloride 121-60-8, 4-Acetamidobenzenesulfonylchloride 124-63-0, Methanesulfonyl chloride 6346-09-4, 4-Aminobutyraldehyde diethylacetal 22483-09-6, 2-Aminoacetaldehyde dimethylacetal
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of sulfonamide-substituted acetal polymer)
IT 23461-58-7P 58754-95-3P 187864-53-5P 187864-57-9P 187864-63-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of sulfonamide-substituted acetal polymer)

L24 ANSWER 19 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:172416 CAPLUS
DN 126:172085
ED Entered STN: 14 Mar 1997
TI Acetal polymers and their use in **photosensitive** compositions and lithographic **printing** plates
IN Baumann, Harald; Dwars, Udo; Savariar-Hauck, Celin; **Timpe, Hans-joachim**
PA Sun Chemical Corporation, USA

STN search for 10765,797

SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C08F008-28
ICS C08F008-30; C08F008-34; G03F007-021
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 42, 74

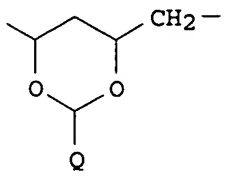
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 752430	A2	19970108	EP 1996-110895	19960705
EP 752430	A3	19980415		
EP 752430	B1	20000920		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
DE 19524851	A1	19970109	DE 1995-19524851	19950707
DE 19524851	C2	19980507		
ZA 9605647	A	19970606	ZA 1996-5647	19960703
US 5700619	A	19971223	US 1996-675024	19960703
CA 2180581	AA	19970108	CA 1996-2180581	19960705
AT 196481	E	20001015	AT 1996-110895	19960705
ES 2151625	T3	20010101	ES 1996-110895	19960705
US 5985996	A	19991116	US 1997-917631	19970822
PRAI DE 1995-19524851	A	19950707		
US 1996-675024	A3	19960703		

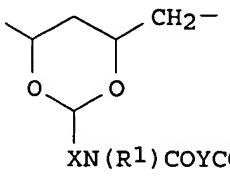
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 752430	ICM	C08F008-28
	ICS	C08F008-30; C08F008-34; G03F007-021
EP 752430	ECLA	C08F008/00+16/06; G03F007/021P2
DE 19524851	ECLA	C08F008/00+16/06; G03F007/021P2
US 5985996	ECLA	G03F007/021P2

GI



I



II

AB A binder containing the units A moiety of vinyl alc. 10-60 mol% and units B of CH2CH(OCOR2) 1-30 mol% and acetal units C of I (Q = R3) 5-60 mol% and acetal units D of I (Q = R4) 0-60 mol% and acetal units E of II 1-40 mol%, where X = an aliphatic, aromatic or araliph. spacer group, R1 = H or an aliphatic, aromatic or araliph. group, R2, R3 and R4 = H or C1-18-alkyl, and Y = a saturated or unsatd. chain- or ring-shaped spacer group was prepared The binder and its **photosensitive** composition are improved in **photosensitivity**, ink receptivity, and increased number of prints. Thus Mowiol 8/88 was first acetylized with butyraldehyde and acetaldehyde and this acetal polymer was then treated with the reaction product of maleic anhydride with 2-(N-methylamino)acetaldehyde di-Me acetal stirred at 60° for 24 h to give a binder having acid number 21 mg KOH/g. A **photosensitive** coating for making **printing** plates

comprises the above binder, condensant of 3-methoxydiphenylamine-4-diazonium sulfate and 4,4'-bismethoxymethyldiphenyl ether, Cu phthalocyanine pigment, phenyl-azo-diphenylamine, and H3PO4 and solvent.

ST acetal polymer acid functional **photosensitive** coating; polyvinyl alc acetal modified binder manuf; lithog **printing** plate **photosensitive** coating

IT Lithographic plates
(acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT Polyvinyl acetals
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(butyrals, reaction product with carboxy group bearing acetal; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT Coating materials
Coating materials
(light-sensitive; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT 9002-89-5, Poly(vinyl alcohol)
RL: RCT (Reactant); RACT (Reactant or reagent)
(acetylation and reaction with carboxy group bearing acetal compound; acetal polymers and their use in **photosensitive** compns. and lithog. **printing** plates)

IT 186903-33-3P 186903-34-4P 186903-35-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with vinyl acetal polymer)

IT 85-43-8 85-44-9, 1,3-Isobenzofurandione 108-31-6, 2,5-Furandione, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with (methylamino)acetaldehyde di-Me acetal)

IT 122-07-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with carboxylic anhydride)

L24 ANSWER 20 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:55895 CAPLUS
DN 126:111031
ED Entered STN: 27 Jan 1997
TI **Photosensitive** composition and **printing** plate making using the same
IN Savariar-Hauck, C.; Baumann, H.; **Timpe, H. J.**; Dwars, U.
PA Sun Chemical Corp., USA
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-032
ICS G03F007-028; G03F007-021; C08L101-02; C08L001-10; C08L029-04; C08L029-14; C08L031-04; C08L061-20; C08F002-50
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19518118	A1	19961121	DE 1995-19518118	19950517
	DE 19518118	C2	19980618		
	EP 749045	A2	19961218	EP 1996-107762	19960515

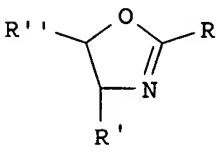
STN search for 10765,797

	EP 749045	A3	19971112		
	EP 749045	B1	20010314		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IT, LI, NL, PT, SE				
	AT 199785	E	20010315	AT 1996-107762	19960515
	CA 2176873	AA	19961118	CA 1996-2176873	19960517
	ZA 9603969	A	19970226	ZA 1996-3969	19960517
	US 5695905	A	19971209	US 1996-649350	19960517
PRAI	DE 1995-19518118	A	19950517		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 19518118	ICM	G03F007-032
	ICS	G03F007-028; G03F007-021; C08L101-02; C08L001-10; C08L029-04; C08L029-14; C08L031-04; C08L061-20; C08F002-50
DE 19518118	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033
EP 749045	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033
US 5695905	ECLA	C08L001/10; C08L029/14; C09D101/10; G03F007/012P; G03F007/032; G03F007/033

GI



I

AB In the title composition comprising (A) a diazonium polycondensation product and/or a radical polymerizable system and (B) a binder, the binder is a reaction product between a carboxyl group containing polymer P(XCOOH)n [P = polymer; n = number; X = single bond, spacer group] and a 2-oxazoline(s) I [R = alkyl, aryl, aralkyl, alkoxy, aryloxy, aralkyloxy; R', R'' = H, alkyl, aryl].

ST **photosensitive** compn binder **printing** plate

IT Polyvinyl butyrals
RL: DEV (Device component use); USES (Uses)
(Mowital B 60T; binder of **photosensitive** composition)

IT Polyurethanes, uses
RL: DEV (Device component use); USES (Uses)
(acrylates; radical polymerizable system of **photosensitive** composition)

IT **Photoresists**
Printing plates
(**photosensitive** composition and **printing** plate making using the same)

IT 108-31-6D, 2,5-Furandione, reaction products with polyvinylbutyral, uses 699-98-9D, Pyridine-2,3-dicarboxylic acid anhydride, reaction products with polyvinylbutyral 7127-19-7D, reaction products with carboxyl group containing polymer 9004-38-0D, CAP, reaction products with 2-phenyl-Δ2-oxazoline 10431-98-8D, reaction products with carboxyl group containing polymer 58206-31-8D, Scripset 540, reaction products with 2-phenyl-Δ2-oxazoline
RL: DEV (Device component use); USES (Uses)
(binder of **photosensitive** composition)

IT 71510-01-5 123893-60-7

STN search for 10765,797

RL: DEV (Device component use); USES (Uses)
(diazonium polycondensation product of **photosensitive** composition)

IT 3179-31-5, 3-Mercapto-1,2,4-triazole 54537-15-4, Diethylaminobenzophenone 60506-81-2, Dipentaerythritolpentaacrylate 69432-40-2, 2-(4-Methoxynaphtho-1-yl)-4,6-bis-(trichloromethyl)-s-triazine 185396-46-7
RL: DEV (Device component use); USES (Uses)
(radical polymerizable system of **photosensitive** composition)

L24 ANSWER 21 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:130814 CAPLUS
DN 124:189526
ED Entered STN: 05 Mar 1996
TI Visible radiation-sensitive composition and recording material producible therefrom.
IN Baumann, Harald; **Timpe, Hans-Joachim**; Herting, Hand-Peter
PA Sun Chemical Corp., USA
SO Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G03F007-029
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 684522	A1	19951129	EP 1995-108090	19950526
	EP 684522	B1	19990506		
	EP 684522	B2	20030924		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, PT, SE				
	DE 4418645	C1	19951214	DE 1994-4418645	19940527
	US 6051366	A	20000418	US 1995-450968	19950525
	CA 2150341	AA	19951128	CA 1995-2150341	19950526
	AT 179804	E	19990515	AT 1995-108090	19950526
PRAI	DE 1994-4418645	A	19940527		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 684522	ICM	G03F007-029
EP 684522	ECLA	G03F007/029
DE 4418645	ECLA	G03F007/029
US 6051366	ECLA	G03F007/029

AB A visible radiation-sensitive composition is described which comprises a binder, one or more polymerizable compds. containing at least one polymerizable group, and one or more dyes having an absorption range in the emission range of the radiation source, characterized in that said composition comprises as an initiator an initiator system consisting of a metallocene as a **photoinitiator** and an onium compound as a coinitiator. The visible radiation-sensitive composition shows an increased radiation sensitivity compared to the known radiation-sensitive compns. and is especially suitable for recording materials such as **printing** plates, which can, in particular, be exposed by means of laser radiation in the visible range.

ST visible **photopolymerizable** compn **photoresist** **printing** plate; metallocene onium compd visible **photopolymerizable** compn

IT **Photoimaging** compositions and processes
(visible light-sensitive **photopolymerizable** compns. containing metallocene and onium salt initiators as)

STN search for 10765,797

IT Lithographic plates
Printing plates
(visible light-sensitive **photopolymerizable** compns. containing metallocene and onium salt initiators for manufacture of)
IT Resists
(**photo**-, visible light-sensitive **photopolymerizable** compns. containing metallocene and onium salt initiators as)
IT 818-61-1D, reaction products with Desmodur N 100 and pentaerythritol triacrylate 3524-68-3D, Pentaerythritol triacrylate, reaction products with Desmodur N 100 and hydroxyethyl acrylate 53200-31-0D, Desmodur N 100, reaction products with hydroxyethyl acrylate and pentaerythritol triacrylate
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(visible light-sensitive **photopolymerizable** compns. containing metallocene and onium salt initiators and)
IT 81-88-9, Rhodamine B 989-38-8, Rhodamine 6G 6359-04-2, Methyleosin 6359-05-3, Ethyleosin 25035-81-8, Methacrylic acid-methyl methacrylate-styrene copolymer 60506-81-2, Dipentaerythritol pentaacrylate 161279-62-5, Joncryl 683
RL: TEM (Technical or engineered material use); USES (Uses)
(visible light-sensitive **photopolymerizable** compns. containing metallocene and onium salt initiators and)
IT 459-64-3, 4-Methoxybenzenediazonium tetrafluoroborate 12097-97-1 12155-89-4, Bis(cyclopentadienyl)bis(pentafluorophenyl)titanium 53920-49-3, N-Methoxypyridinium p-toluenesulfonate 74227-35-3, Bis[4-diphenylsulfonio)phenyl]sulfide bis hexafluorophosphate 97671-66-4 125051-32-3 173921-11-4 173921-12-5 173921-13-6
RL: TEM (Technical or engineered material use); USES (Uses)
(visible light-sensitive **photopolymerizable** compns. using initiator compns. containing)

L24 ANSWER 22 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:389605 CAPLUS
DN 122:226851
ED Entered STN: 04 Mar 1995
TI Light-sensitive compositions, their use as coatings for **printing** plates, and the **printing** plates
IN Savariar-Hauck, Celin Mary; Herting, Hans-Peter; **Timpe, Hans-Joachim**
PA Polychrome GmbH, Germany
SO Ger., 7 pp.
CODEN: GWXXAW
DT Patent
LA German
IC ICM G03F007-021
ICS G03F007-105; C08L061-20; C08L079-00; B41C003-06
ICI C08L035-00, C08L023-00, C08L025-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4311738	C1	19940505	DE 1993-4311738	19930408
PRAI	DE 1993-4311738		19930408		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 4311738	ICM	G03F007-021
	ICS	G03F007-105; C08L061-20; C08L079-00; B41C003-06

ICI C08L035-00, C08L023-00, C08L025-00

AB The title compns. comprise a mixture having as major components: (a) a diazonium polycondensation product or a mixture of a diazonium polycondensation product and a diazonium salt; (b) a polymer with a weight average mol. weight of ≥150,000 g/mol and produced by esterification of a copolymer of an intramol. anhydride and an organic unsatd. compound by ring opening with an unsatd. alc. or a saturated alc.; and (c) ≥1 sensitizers. The composition can be used to produce a **printing** plates with high wear resistance and high sensitivity.

ST **photosensitive** compn **printing** plate; diazonium compd polymer ester **photosensitive** compn

IT **Printing** plates
(**photosensitive** composition for high wear resistance)

IT 2509-26-4D, 4,4'-Bismethoxymethyl diphenyl ether, polycondensation product with 2-methoxydiphenylamine-4-diazonium sulfate 9038-42-0 29377-89-7D, polycondensation product with 4,4'-bismethoxymethyl di-Ph ether 39279-94-2 51204-92-3 67527-24-6 162031-69-8 162031-71-2
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photosensitive** composition)

L24 ANSWER 23 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:617291 CAPLUS
DN 121:217291
ED Entered STN: 29 Oct 1994
TI Chemical aspects of offset **printing**
AU Baumann, Harald; **Timpe, Hans-Joachim**
CS Div. Res. and Dev., Polychrome GmbH, Osterode, Germany
SO Journal fuer Praktische Chemie/Chemiker-Zeitung (1994), 336(5), 377-89
CODEN: JPCCEM; ISSN: 0941-1216
DT Journal; General Review
LA English
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB In the last ten years, offset **printing** has achieved the broadest application on the **printing** market due to its inherent advantages. Light sensitive offset plates for contact UV exposure are mainly used at present. The chemical of UV exposure are mainly used at present. The chemical of these plates are based on the **photoreactions** of quinone diazides, diazo resins and radical **photopolymers.** For the further development of offset **printing** plates the improve of the light sensitivity and extension of spectral sensitivity to the visible range is a market-driven requirement to realize transfer of computer stored information by laser. For this requirement electrophotog. systems, systems based on silver halides and **photoinduced** polymns. are most important. New literature data dealing with these systems in relation to **printing** plates are summarized. 106 Refs.

ST review offset **printing**

IT Lithographic plates
Lithography
(offset)

L24 ANSWER 24 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:204204 CAPLUS
DN 120:204204
ED Entered STN: 16 Apr 1994
TI Modern plates for offset **printing**
AU Baumann, H.; Herting, H. P.; **Timpe, H. J.**
CS Polychrome GmbH, Osterode, D-3360, Germany

STN search for 10765,797

SO Journal of Information Recording Materials (1993), 20(4), 301-23
CODEN: JIRMEA; ISSN: 0863-0453
DT Journal; General Review
LA English
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB In the last 10 yr, offset **printing** has achieved the broadest applications on the **printing** market due to its inherent advantages. For the further development of offset **printing** plates the improvement of light sensitivity and the extension of spectral sensitivity to the visible range is a market-driven requirement. This includes the possibility of transferring computer stored information by laser. For this requirement electrophotog. systems and systems based on silver halides and **photoinduced** polymerization represent most importance. New literature data dealing with these systems in relation to **printing** plates are summarized. 62 Refs.
ST review offset **printing** plate computer application; electrophotog offset **printing** plate review; **photopolymn** offset **printing** plate review; **photog** offset **printing** plate computer review
IT **Photolysis**
(offset **printing** plate preparation using)
IT Electrophotographic **photoconductors** and **photoreceptors**
(offset **printing** plates using)
IT Lithographic plates
(offset, new methods for preparation of, based on **photopolymn.** and electrophotog. and silver halide **photog.**)
IT Polymerization
(**photochem.**, offset **printing** plate preparation using)

L24 ANSWER 25 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:265682 CAPLUS
DN 116:265682
ED Entered STN: 27 Jun 1992
TI **Photocrosslinkable** silicones
IN Mueller, Uwe; **Timpe, Hans Joachim**; Peters, Kay; Neuenfeld, Judith; Roesler, Harald; Wendt, Heinz Dieter
PA Chemiewerk Nuenchritz G.m.b.H., Germany
SO Ger. (East), 4 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03F007-075
ICS C08G077-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 298700	A5	19920305	DD 1988-322924	19881209
PRAI	DD 1988-322924		19881209		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 298700	ICM	G03F007-075
	ICS	C08G077-04

OS MARPAT 116:265682
AB A **photocrosslinkable** silicone contains a alkenyl group-containing polyorganosiloxane, a carbonyl group-containing **photoinitiator**, and a crosslinking agent, and the initiators having a triplet energy of

≥250 kJ/mol are R1R2CHOSiR3R4(OCHR1R2) (R1,2 = H, C1-4-alkyl; R3,4 = OCHR1R2, C1-4-alkyl). The composition is useful for preparing **photoconductor** in a fabrication of **printing** switch and relief pattern for **printing** plates.

ST **printing** plate **photocrosslinkable** silicone; **photoinitiator** silicone compn

IT **Printing** plates
(**photocrosslinkable** silicone composition for)

IT Siloxanes and Silicones, uses
RL: USES (Uses)
(**photocrosslinkable**, for fabrication of **printing** plates)

IT 78-07-9, Triethoxyethylsilane 78-10-4, Tetraethoxysilane 90-44-8, Anthrone 90-47-1, Xanthone 98-86-2, Acetophenone, uses 119-53-9, Benzoin 119-61-9, Benzophenone, uses 134-84-9 682-01-9, Tetrapropoxysilane 1992-48-9, Tetraisopropoxysilane 2550-02-9, Triethoxypropylsilane 4766-57-8, Tetrabutoxysilane 6652-28-4, Benzoin isopropyl ether 19811-05-3, 2,4-Dichlorobenzophenone
RL: USES (Uses)
(**photocrosslinkable** silicone composition containing, for **printing** plate fabrication)

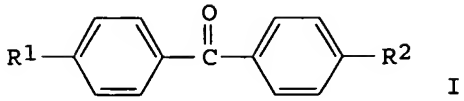
L24 ANSWER 26 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:265681 CAPLUS
DN 116:265681
ED Entered STN: 27 Jun 1992
TI **Photocrosslinkable** silicones
IN Mueller, Uwe; **Timpe, Hans Joachim**; Peters, Kay; Neuenfeld, Judith; Roesler, Harald; Wendt, Heinz Dieter
PA Chemiewerk Nuenchritz G.m.b.H., Germany
SO Ger. (East), 4 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03F007-075
ICS C08G077-04
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 298701	A5	19920305	DD 1988-322925	19881209
PRAI DD 1988-322925		19881209		

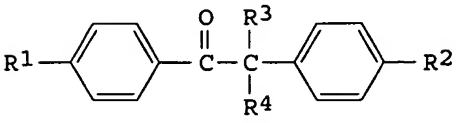
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 298701	ICM	G03F007-075
	ICS	C08G077-04

OS MARPAT 116:265681
GI



I



II

AB A **photo**-crosslinkable silicone contains a polyorganosiloxane having ≥2 unsatd. groups, a polyorganosiloxane having ≥2 Si-H groups as a crosslinking agent, and a **photoinitiator** composition containing I and/or II and a silane SiR5R6R7 (III) (R1,2 = H, alkyl, halo; R3,4 = H, alkyl, alkoxy, aryl, aryloxy, halo, OH, SO2-aryl; R5,6,7 = alkyl, aryl, alkoxy, aryloxy) at a I and/or II to III ratio of (10:1)-(1:20). The composition is useful for preparing **photoconductor** in a fabrication of **printing** switch and relief pattern for **printing** plates.

ST **printing** plate **photocrosslinkable** silicone; **photoinitiator** silicone compn

IT **Printing** plates
(**photocrosslinkable** silicone composition for)

IT Siloxanes and Silicones, uses
RL: USES (Uses)
(**photocrosslinkable**, for fabrication of **printing** plates)

IT 119-61-9, Benzophenone, uses 134-84-9, p-Methylbenzophenone 617-86-7, Triethylsilane 766-77-8, Phenyldimethylsilane 998-30-1, Triethoxysilane 6652-28-4, Benzoin isopropyl ether 24650-42-8
RL: USES (Uses)
(**photoinitiator** composition containing, for preparation of **photocrosslinkable** silicones)

L24 ANSWER 27 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:31427 CAPLUS
DN 116:31427
ED Entered STN: 24 Jan 1992
TI Spectrally sensitized **photopolymerizable** material
IN Ulrich, Sven; **Timpe, Hans Joachim**; Reichmuth, Klaus; Moeckel, Peter
PA Technische Hochschule "Carl Schorlemmer" Leuna-Merseburg, Germany
SO Ger. (East), 4 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

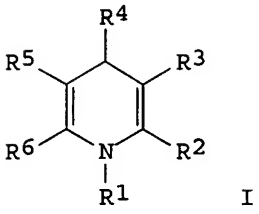
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 287796	A5	19910307	DD 1989-332618	19890914
PRAI DD 1989-332618		19890914		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

STN search for 10765,797

DD 287796 ICM G03C001-68
OS MARPAT 116:31427
GI



I

AB The title material comprises a radical or cationic polymerizable monomer, a 1,4-dihydropyridine, a coinitiator, a binder, and optionally an additive, where the dihydropyridine is I [R1 = H, alkyl, aralkyl, R11CO (R11 = alkyl, aralkyl); R2, R6 = H, alkyl; R3, R5 = CnHn+1OCO, CnHn+1CO, COOH, CONR7R8 (R7, R8 = H, alkyl, aralkyl), CN; R4 = H, alkyl, aralkyl, Ph ring (substituted with halogens, NO2, alkyl, or alkoxy), furanyl], and the coinitiator is R12(R13)p(R14)q m+ Z- [R12, R13, R14 = alkyl, aryl, aralkyl; m = I, Cl, Br, S, Se, Te; Z = anion; p = 0-2; q = 1-2]. In particular, 2,6-dimethyl-3,5-diethoxycarbonyl-4-methyl-1,4-dihydropyridine and diphenyliodonium tetrafluoroborate were used. The **photoinitiator** system can be used for neg. working material as well as for **printing** plates.
ST **photoinitiator** hydropyridine onium salt; **printing** plate **photopolymerizable** compn
IT **Printing** plates
(**photopolymerizable** composition for, dihydropyridine compound and onium salts in)
IT **Photoimaging** compositions and processes
(neg.-working, dihydropyridine compound and onium salts in)
IT Polymerization catalysts
(**photochem.**, dihydropyridine compound and onium salts as)
IT 313-39-3, Diphenyliodonium tetrafluoroborate 437-13-8, Triphenylsulfonium tetrafluoroborate 131267-17-9
RL: USES (Uses)
(**photoinitiator** system containing dihydropyridine compound and)
IT 632-93-9 1149-23-1 35929-79-4 42972-34-9 70677-78-0
RL: USES (Uses)
(**photoinitiator** system containing onium compound and)

L24 ANSWER 28 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:33161 CAPLUS
DN 114:33161
ED Entered STN: 26 Jan 1991
TI Positive-working silver-free **photosensitive** material
IN Rautschek, Holger; **Timpe, Hans Joachim**; Mueller, Christine; Heller, Volkmar
PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen Industrie, Ger. Dem. Rep.
SO Ger. (East), 4 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-495
ICS G03F007-10

STN search for 10765,797

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 275748	A1	19900131	DD 1988-319936	19880920
PRAI DD 1988-319936		19880920		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 275748	ICM	G03C001-495
	ICS	G03F007-10

AB A pos.-working Ag-free **photosensitive** material for use as a recording material or a **photoresist** or production of a **printing** plate, projection slide, or printed circuit comprises a support with ≥1 **photosensitive** layer containing a novolak resin obtained by condensation of ≥1 phenol with ≥1 aldehyde and ≥1 compound or combination of compds. that form upon exposure to light a protonic or Lewis acid that decomps. the novolak resin without the formation of gaseous products. Thus, a mech. roughened Al plate was coated with composition containing PLastaresin 205, a carboxyl group-terminated α-methylstyrene oligomer, Michler's ketone, benzophenone, dicumyliodonium chloride, and MeCOEt, exposed, and developed to give a lithog. plate. The resulting lithog. plate was capable of **printing** 15,000 prints of constant good quality.

ST pos **photosensitive** compn lithog plate; silverfree pos **photosensitive** compn

IT Lithographic plates
(pos.-working **photosensitive** compns. for fabrication of)

IT Projection slides
(pos.-working **photosensitive** compns. for production of)

IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(novolak, pos.-working **photoimaging** compns. containing)

IT Lithographic plates
(offset, pos.-working **photosensitive** compns. for fabrication of)

IT Resists
(**photo-**, pos.-working, **photosensitive** compns. for)

IT **Photoimaging** compositions and processes
(pos.-working, **photosensitive** compns. for)

IT Audio-visual aids
(projection slides, pos.-working **photosensitive** compns. for production of)

IT 9003-35-4, Formaldehyde-phenol copolymer
RL: USES (Uses)
(novolak, pos.-working **photosensitive** compns. containing, for offset lithog. plate fabrication)

IT 90-94-8, Michler's ketone 119-61-9, Benzophenone, uses and miscellaneous 548-62-9, Crystal violet 25014-31-7D, Poly(α-methylstyrene), carboxylated 26708-04-3, 2-Ethyl-9,10-dimethoxyanthracene 75009-76-6 101802-52-2, Plastaresin 205 114238-65-2 131094-43-4, M-Sconresin 210 131267-17-9
RL: USES (Uses)
(pos.-working **photoimaging** compns. containing)

IT 120-12-7, Anthracene, uses and miscellaneous 73166-48-0 126139-90-0
RL: USES (Uses)
(pos.-working **photosensitive** compns. containing, for offset lithog. plate fabrication)

IT 2150-48-3, Pyronine B 118168-67-5 131267-18-0

RL: USES (Uses)
(pos.-working **photosensitive** compns. containing, for projection slide production)

L24 ANSWER 29 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:226823 CAPLUS
DN 112:226823
ED Entered STN: 09 Jun 1990
TI **Photopolymerizable** material for **photoresists** and **printing** plates
IN Rautschek, Holger; **Timpe, Hans Joachim**; Mueller, Christine; Heller, Volkmar
PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen Industrie, Ger. Dem. Rep.
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03F007-10
ICS C08F002-50; C08G059-68; C08L025-16; C08L025-08
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3908757	A1	19891019	DE 1989-3908757	19890317
	HU 51395	A2	19900428	HU 1989-1662	19890406
PRAI	DD 1988-314443	A	19880406		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3908757	ICM	G03F007-10
	ICS	C08F002-50; C08G059-68; C08L025-16; C08L025-08

AB **Photopolymerizable** materials for the production of **printing** plates and the like consist of an underlayer, a **photosensitive** layer containing a cationically polymerizable monomer, an initiator system that forms a Lewis or Broensted acid upon irradiation, and a binder that is free of strongly nucleophilic groups and COOH groups, and an auxiliary layer. Thus, a mech. roughened and anodized Al plate was overcoated with a mixture containing the epoxy resin M 545, mono-Bu maleate-α-methylstyrene copolymer, anthracene, dicumyliodonium hexafluorophosphate, and Me2CO, dried, imagewise exposed, and then developed with a 0.5% aqueous Na2CO3 solution to give a **printing** plate.
ST **photopolymerizable** material **printing** plate **photoresist**
IT Epoxides
Epoxy resins, uses and miscellaneous
Ketones, uses and miscellaneous
RL: USES (Uses)
(**photopolymerizable** compns. containing, for **photoresists** and **printing** plate fabrication)
IT **Printing** plates
(**photopolymerizable** compns. for fabrication of)
IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(epoxy, novolak, **photopolymerizable** compns. containing, for **photoresists** and **printing** plate fabrication)
IT Onium compounds
RL: USES (Uses)
(iodonium, **photopolymerizable** compns. containing, for

photoresists and **printing** plate fabrication)
IT Lithographic plates
(offset, **photopolymerizable** compns. for fabrication of)
IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(phenolic, novolak, **photopolymerizable** compns. containing, for **photoresists** and **printing** plate fabrication)
IT Resists
(**photo-**, **photopolymerizable** compns. for)
IT 25014-31-7D, Poly(α-methylstyrene), carboxyl group-terminated
RL: USES (Uses)
(**photopolymerizable** compns. containing oligomeric, for **photoresists** and **printing** plate fabrication)
IT 84-11-7, Phenanthrenequinone 90-47-1, Xanthone 90-94-8, Michler's ketone 115-77-5D, glycidyl ethers 119-61-9, Benzophenone, uses and miscellaneous 120-12-7, Anthracene, uses and miscellaneous 198-55-0, Perylene 673-48-3 924-83-4 1675-54-3 2386-87-0, 3,4-Epoxycyclohexylmethyl 3',4'-epoxycyclohexanecarboxylate 2425-79-8 16096-31-4 25215-61-6 25215-62-7, Monobutyl maleate-styrene copolymer 25585-77-7, Acrylic acid-ethyl acrylate-styrene copolymer 59487-35-3, Ditolyliodonium hexafluorophosphate 75009-76-6 118168-67-5 125935-90-2, M 545 126139-90-0
RL: USES (Uses)
(**photopolymerizable** compns. containing, for **photoresists** and **printing** plate fabrication)

L24 ANSWER 30 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:66738 CAPLUS
DN 112:66738
ED Entered STN: 17 Feb 1990
TI **Photopolymerizable** composition containing diol compounds
IN Strehmel, Bernd; **Timpe, Hans Joachim**; Rautschek, Holger; Mueller, Christine; Heller, Volkmar; Heinzig, Steffen; Schuelert, Helmut; Gabert, Kurt
PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen Industrie, Ger. Dem. Rep.
SO Ger. (East), 6 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
ICS G03F007-10
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 268536	A1	19890531	DD 1988-312241	19880115
PRAI	DD 1988-312241		19880115		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 268536	ICM	G03C001-68
	ICS	G03F007-10

AB The title composition contains ≥1 alkali-soluble binder, a **photoinitiator** or **photoinitiator** system, a stabilizer, and ≥1 of the following alkali-soluble monomers: (1) HO2CCH:CHCO2(CH2)mCH:CH(CH2)nO2CCH:CHCO2H; (2) HO2CCH:CHCO2(CH2)mCH:CH(CH2)nO2CCH:CHCO2H; (3) HO2CCH:CHCO2(CH2)pO2CCH:CHCO2H; (4) HO2CCH:CHCO2(CH2)pO2CCH:CHCO2H; (5)

HO2CCH:CHCO2(CH2CH2O)qOCCH:CHCO2H; and (6) HO2CCH:CHCO2(CH2CH2O)qOCCH:CHCO 2H [m, n = 1-6; p = 3-6; q = 2-4]. The composition can be used for relief **printing** plate production or information recording.

ST **photopolymerizable** compn diol acid; **printing** plate relief **photosensitive** compn

IT **Photoimaging** compositions and processes
(containing diol compds.)

IT **Printing** plates
(relief, **photopolymerizable** compns. containing diol compds. for preparation of)

IT 55133-52-3 62538-61-8 85647-79-6 99031-89-7 119713-41-6 124816-31-5
RL: USES (Uses)
(**photopolymerizable** composition containing)

L24 ANSWER 31 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:45695 CAPLUS
DN 112:45695
ED Entered STN: 04 Feb 1990
TI **Photopolymerizable** material
IN Baumann, Harald; Israle, Gunter; Kraus, Norbert; Kronfeld, Klaus Peter; Mueller, Uwe; Raetzsch, Manfred; **Timpe, Hans Joachim**
PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.
SO Ger. (East), 5 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 268313	A1	19890524	DD 1987-311439	19871228
PRAI DD 1987-311439		19871228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 268313	ICM	G03C001-68

OS MARPAT 112:45695

AB A **photopolymerizable** material that is suitable for the production of printed circuits and relief **printing** plates uses a water-soluble **photoinitiator** system containing an onium compound and a water-soluble aromatic ketone with readily oxidizable groups. The **photopolymerizable** material may contain N,N-dimethylaminopropylacrylamide, mon-Bu maleate-styrene copolymer, diphenyliodonium hydrogen sulfate, Michler's ketone disulfonic acid, NaOH, and H2O.

ST **photopolymerizable** compn relief **printing** plate

IT Lithographic plates
(**photopolymerizable** compns. for fabrication of)

IT **Photoimaging** compositions and processes
(**photopolymerizable**, for relief image formation)

IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9, Methylenebisacrylamide 673-41-6 2426-54-2, N,N-Diethylaminoethyl acrylate 2867-47-2, N,N-Dimethylaminoethyl methacrylate 3845-76-9, N,N-Dimethylaminopropylacrylamide 9003-39-8, Poly(N-vinylpyrrolidone) 20602-77-1 25085-35-2, Acrylic acid-ethyl-acrylate copolymer 25215-62-7, Monobutylmaleate-styrene copolymer 49723-69-5, Diphenyliodonium hydrogen sulfate 124417-44-3

STN search for 10765,797

RL: USES (Uses)
(**photopolymerizable photoimaging** compns. containing, for relief image formation)

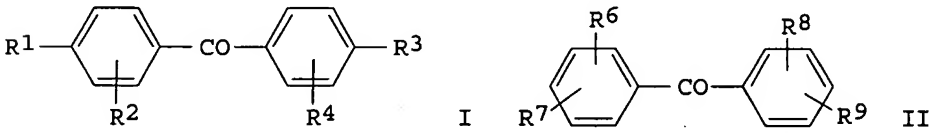
L24 ANSWER 32 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:564207 CAPLUS
DN 111:164207
ED Entered STN: 28 Oct 1989
TI **Photopolymerizable** materials for relief image formation
IN Kraus, Norbert; Mueller, Uwe; Raetzsch, Manfred; Kronfeld, Klaus P.; **Timpe, Hans J.**; Papendick, Birgit
PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.
SO Ger. (East), 6 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 261858	A1	19881109	DD 1985-277252	19850611
PRAI DD 1985-277252		19850611		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 261858	ICM	G03C001-68

OS MARPAT 111:164207
GI



AB **Photopolymerizable** materials for relief image formation as in the production of printed circuits and relief **printing** plates consist of an underlayer, a light-sensitive layer containing a monomer and a **photoinitiator** system consisting of a betaine structure-forming compound of the formula I (R1, R3 = N(R5)2; R2 = H, CO2M1, SO3M1; R4 = CO2M1, SO2M1; R5 = H, C1-4 alkyl; and M1 = H, Li, Na, K), a benzophenone derivative of the formula II (R6, R8 = H, alkyl; R7 = H, CO2M2, SO2M2; R9 = CO2M2, SO2M2; M2 = H, Li, Na, K), and an anion compound, and auxiliary layers. An anodized Al plate or a hydrophilized polyester film was coated with a compound of the formula I (R1, R3 = NMe2; R2, R3 = m-SO3H), II (R6, R8 = H; R7, R9 = m-SO3Na), diphenyliodonium hydrogen sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N-dimethylaminopropylacrylamide, gelatin, poly(vinyl alc.), and water, dried, imagewise exposed with a high-pressure Hg lamp, and developed with warm water to give a polymer relief image.
ST **photopolymerizable** compn relief image formation; betaine **photoinitiator photopolymer** compn; onium compd **photoinitiator photopolymer** compn; benzophenone deriv **photoinitiator photopolymer** compn
IT **Photoimaging** compositions and processes
(**photopolymer**, containing **photoinitiator** system from

betaine structure-forming compound and benzophenone derivative for relief image formation)
IT Gelatins, uses and miscellaneous
RL: USES (Uses)
(**photopolymerizable** composition containing three-component **photoinitiator** system and, for relief image formation)
IT Resists
(**photo**-, containing **photoinitiator** system from betaine structure-forming compound and benzophenone derivative)
IT Electric circuits
(printed, **photopolymerizable** compns. containing **photoinitiator** system from betaine structure-forming compound and benzophenone derivative for fabrication of)
IT **Printing** plates
(relief, **photopolymerizable** compns. containing **photoinitiator** system from betaine structure-forming compound and benzophenone derivative for fabrication of)
IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9, N,N'-Methylenebisacrylamide 930-37-0, Methyl glycidyl ether 3845-76-9 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Poly(vinylpyrrolidone)
RL: USES (Uses)
(**photopolymerizable** composition containing three-component **photoinitiator** system and, for relief image formation)
IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 4248-56-0 7091-28-3 19917-05-6 49723-69-5, Diphenyliodonium hydrogen sulfate 118144-73-3 119056-51-8
RL: USES (Uses)
(**photopolymerizable** composition with **photoinitiator** system containing, for relief image formation)

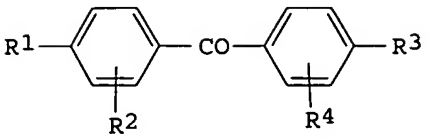
L24 ANSWER 33 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:415341 CAPLUS
DN 111:15341
ED Entered STN: 08 Jul 1989
TI High-sensitivity **photoimaging** composition containing betaine and onium compound
IN Kraus, Norbert; Muller, Uwe; Ratzsch, Manfred; Kronfeld, Klaus Peter; **Timpe, Hans Joachim**; Papendieck, Birgit
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Fr. Demande, 12 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM G03C001-68
ICS G03F007-00
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2609185	A1	19880701	FR 1986-18175	19861224
	CH 671294	A	19890815	CH 1986-4826	19861203
PRAI	FR 1986-18175		19861224		

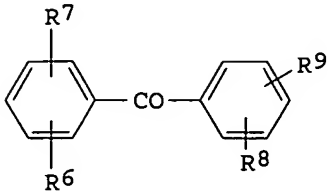
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
FR 2609185	ICM	G03C001-68
	ICS	G03F007-00

GI



I



II

AB A high sensitivity **photoimaging** composition contains a binder, monomers, and a H2O-soluble system containing a betaine of the structure I [R1, R3 = NR52; R2 = H, CO2X, SO3X; R5 = H, alkyl; X = H, Li, Na, K; R4 = CO2X, SO3X], a compound of the formula II [R6, R8 = H or alkyl at the p- or o-position; R7 = R2 at the meta or para position; R9 = R4 at the meta or para position], and an onium compound The composition can be used for forming printed circuits, **printing** plates, or the surface layer of images. Thus, a composition containing I [R1, R3 = p-methylamino; R2, R4 = m-SO3H], II [R6, R8 = H; R7, R9 = m-SO3Na], diphenyliodonium sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N'-dimethylpropylacrylamide, gelatin, PVA, and H2O, was used to form polymer images, and then dipped in a dye bath to obtain colored images.

ST **photoimaging** compn water sol; betaine compd water sol **photoimaging**; onium compd water sol **photoimaging**; **printing** plate water sol compn; elec circuit water sol compn

IT **Photoimaging** compositions and processes
(containing water-soluble system containing betaine and onium compound, high-sensitivity)

IT Onium compounds
RL: USES (Uses)
(**photoimaging** composition containing)

IT **Printing** plates
(**photosensitive** composition containing betaine and onium compound for production of)

IT Electric circuits
(printed, **photosensitive** composition containing betaine and onium compound for production of)

IT 79-06-1, Acrylamide, uses and miscellaneous 110-26-9, N,N'-Methylenebisacrylamide 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 930-37-0, Methyl glycidyl ether 3845-76-9, N,N-Dimethylaminopropylacrylamide 9003-39-8, Polyvinylpyrrolidone 10595-45-6 19917-05-6 115051-15-5 118144-73-3 121039-18-7
RL: USES (Uses)
(**photoimaging** composition containing, high-sensitivity)

L24 ANSWER 34 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:182965 CAPLUS
DN 110:182965
ED Entered STN: 12 May 1989
TI **Photopolymerizable** material for preparing printed circuits and **printing** plates
IN Kraus, Norbert; Haubold, Wolfgang; Israel, Guenter; Mueller, Uwe; Taplick, Thomas; **Timpe, Hans Joachim**; Raetzsch, Manfred; Knopel, Reingard

STN search for 10765,797

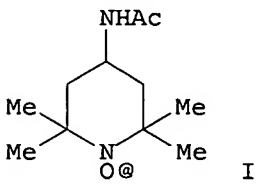
PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.
SO Ger. (East), 8 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 256770	A1	19880518	DD 1985-280943	19850924
PRAI DD 1985-280943		19850924		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 256770	ICM	G03C001-68

GI



I

AB **Photopolymerizable** materials for use in preparing printed circuits and relief images for **printing** plates or for preparing imagewise-hardened coatings are composed of a support, ≥1 **photosensitive** layer containing a monomer, binder, inhibitor, a **photoinitiator** from a compound with an N-oxyl structure, and further additives, and optional further auxiliary layers. The materials give improved detail reproduction and have an improved storage stability. Thus, a PET foil was coated with a composition containing a mono-Bu maleate-styrene copolymer, pentaerythritol tetraacrylate, Michler's ketone, benzophenone, diphenyliodonium chloride, I, BuOH, and MeOH, dried, imagewise exposed, and developed with aqueous Na2CO3 to produce a relief image that could be colored with Solamine Light Turkish Blue.

ST oxyl compd **photoinitiator photosensitive** compn; **printing** plate **photosensitive** oxyl compd; relief image **photosensitive** oxyl compd; printed circuit **photosensitive** oxyl compd; circuit circuit **photosensitive** oxyl compd

IT Lithographic plates
(**photosensitive** compns. containing N-oxyl compound **photoinitiator** for fabrication of)

IT Resists
(**photo-**, containing N-oxyl compound **photoinitiator**)

IT **Photoimaging** compositions and processes
(**photopolymerizable**, containing N-oxyl compound **photoinitiator** for relief images)

IT 150-76-5, Hydroquinone monomethyl ether 3225-26-1 14691-89-5 118086-68-3
RL: USES (Uses)
(**photosensitive** compns. containing **photoinitiator** from, for relief image formation)

IT 79-06-1, 2-Propenamide, uses and miscellaneous 90-94-8, Michler's ketone

110-26-9, Methylene bisacrylamide 119-61-9, Benzophenone, uses and miscellaneous 959-52-4 1483-72-3, Diphenyliodonium chloride 3845-76-9, N,N-Dimethylaminopropylacrylamide 4986-89-4, Pentaerythritol tetraacrylate 5459-38-1 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Poly(vinylpyrrolidone) 24305-03-1 49723-69-5, Diphenyliodonium hydrogen sulfate 54991-66-1 97586-32-8 118144-73-3 120300-12-1
RL: USES (Uses)
(**photosensitive** compns. containing N-oxyl compound **photoinitiator** and, for relief image formation)

L24 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:85505 CAPLUS
DN 110:85505
ED Entered STN: 04 Mar 1989
TI **Photoimaging** composition containing highly sensitive three-component **photoinitiator** system
IN Kraus, Norbert; Mueller, Uwe; Raetzsch, Manfred; Kronfeld, Klaus Peter; **Timpe, Hans Joachim**; Papendieck, Birgit
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03C001-68
ICS G03F007-10
ICA C07C101-78; C07C143-56
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

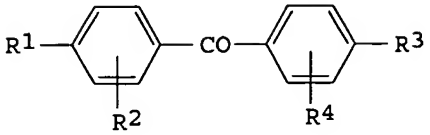
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3641053	A1	19880616	DE 1986-3641053	19861201
	GB 2198735	A1	19880622	GB 1986-30356	19861219
	GB 2198735	B2	19900404		
PRAI	DE 1986-3641053		19861201		

CLASS

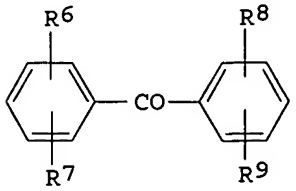
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3641053	ICM	G03C001-68
	ICS	G03F007-10
	ICA	C07C101-78; C07C143-56

OS MARPAT 110:85505
GI

STN search for 10765,797



I



II

AB A **photopolymerizable** composition contains at least a **photosensitive** layer composed of monomers and a H2O-soluble 3-component **photoinitiator** system containing a benzophenone derivative of the structure I [R1, R3 = NR52; R2 = H, CO2X, SO3X; R4 = CO2X, SO3X; R5 = H, C1-4 alkyl; X = H, Li, Na, K], a benzophenone derivative of the structure II [R6, R8 = H, alkyl in the ortho or para position; R7 = H, CO2X, SO3X, in the meta or para position; R9 = CO2X, SO3X, in the meta or para position; X = H, Li, K, Na], and an anion compound The **photoinitiator** system has very high sensitivity and the composition can be developed with H2O or an aqueous solution Thus, a composition containing I [R1, R3 = p-Me2N; R2, R4 = m-SO3H], II [R6, R8 = H; R7, R9 = m-SO3Na], diphenyliodium hydrogen sulfate, acrylamide, N,N'-methylenebisacrylamide, N,N'-dimethylpropylacrylamide, gelatin, PVA, and H2O was used to form a relief image by using a high-pressure Hg vapor lamp.

ST **photoimaging** compn **photoinitiator** system; **printing** plate **photopolymer** compn **photoinitiator** ; anion compd **photoinitiator photopolymer** compn; benzophenone deriv **photoinitiator photopolymer** compn

IT **Photoimaging** compositions and processes
(**photoinitiator** system for, 3-component, containing benzophenone derivs.)

IT **Printing** plates
(**photopolymerizable** composition for fabrication of, three-component **photoinitiator** system containing benzophenone derivs. for)

IT Polymerization catalysts
(**photochem.**, three-component, containing benzophenone derivs.)

IT 673-41-6, p-Chlorobenzenediazonium tetrafluoroborate 4248-56-0 19917-05-6 49723-69-5 118144-73-3 119056-51-8
RL: USES (Uses)
(**photoinitiator** system containing, for **photopolymer photoimaging** materials)

IT 79-06-1, 2-Propenamide, uses and miscellaneous 110-26-9, N,N'-Methylenebisacrylamide 3845-76-9 10595-45-6
RL: USES (Uses)
(**photopolymer photoimaging** material containing, 3-component **photoinitiator** system for)

L24 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:15948 CAPLUS
DN 110:15948
ED Entered STN: 06 Jan 1989

STN search for 10765,797

TI **Photopolymerizable** composition containing maleic acid copolymer and amine compound
IN Kraus, Norbert; Baumann, Harald; Mueller, Uwe; Pietsch, Herward; Raetsch, Manfred; **Timpe, Hans Joachim**
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Ger. (East), 5 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 254798	A1	19880309	DD 1984-266888	19840903
PRAI DD 1984-266888		19840903		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 254798	ICM	G03C001-68

AB A **photopolymerizable** composition for preparing relief **printing** plates and printed circuits comprises: (1) a binder from a mixture of ≥2 modified maleic anhydride copolymers with multiple salt forming groups, in which ≥1 component is a modified alternating maleic anhydride copolymer with most probable mol. weight 20,000-500,000 (20-95 mol%) and ≥1 component from a modified nonalternating maleic anhydride copolymer with most probable mol. weight 10,000-300,000 (60-95 mol%) and (2) ≥1 ethylenically unsatd. addition polymerizable monomer with ≥1 primary, sec, or tert amino group. The composition is developable with an aqueous medium. The composition is fog-free, produces images with high edge definition, and has improved adhesion to the support. The composition may contain styrene-maleic acid Bu half ester copolymer, Bu amine, Me methacrylate-maleic anhydride copolymer, N,N-dimethylaminopropylacrylamide, catalysts, and solvents.

ST **printing** plate **photoimaging** compn; maleic anhydride copolymer **photoimaging** compn; elec circuit amine **photoimaging** compn

IT **Photoimaging** compositions and processes
(containing maleic anhydride copolymer and amine)

IT Electric circuits
(printed, **photopolymerizable** compns. containing maleic anhydride copolymer and amine for)

IT **Printing** plates
(relief, **photopolymerizable** compns. containing maleic anhydride copolymer and amine for)

IT 109-73-9, n-Butyl amine, uses and miscellaneous 110-26-9, Methylenebisacrylamide 3845-76-9, N,N-Dimethylaminopropylacrylamide 21714-01-2 25119-65-7, Maleic anhydride-methyl methacrylate copolymer 25215-62-7 71878-02-9 117805-76-2
RL: USES (Uses)
(**photopolymerizable** composition containing)

L24 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:560310 CAPLUS
DN 109:160310
ED Entered STN: 28 Oct 1988
TI **Photopolymers** for **printing** plates

STN search for 10765,797

AU **Timpe, Hans Joachim**; Baumann, Harald; Rautschek, Holger; Rautschek, Monika; Mueller, Christine
CS Sekt. Chem., Tech. Hochsch. "Carl Schorlemmer", Merseburg, DDR-4200, Ger. Dem. Rep.
SO Chemische Technik (Leipzig, Germany) (1988), 40(8), 327-33
CODEN: CHTEAA; ISSN: 0045-6519
DT Journal; General Review
LA German
CC 74-0 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB A review with 62 refs. dealing with the production of **printing** plates in the polygraphic industry. The **photopolymer** systems are classified as diazo systems, azide systems, **photocycloaddn.** systems, systems based on **photoinduced** polymerization, and **photopolymer** systems for waterless offset **printing.** The **photochem.** of these systems and the advantages in the polygraphic application are discussed.
ST review **photopolymer printing** plate prodn
IT **Printing** plates
(production of, **photopolymers** in)

L24 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:177235 CAPLUS
DN 108:177235
ED Entered STN: 13 May 1988
TI Initiator system for **photopolymerizable** materials
IN Heller, Volkmar; Heinzig, Steffen; Mueller, Christine; **Timpe, Hans Joachim**; Papendieck, Birgit; Mueller, Uwe
PA Institut fuer Grafische Technik Forschungsinstitut der Polygrafischen Industrie, Ger. Dem. Rep.
SO Ger. Offen., 8 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM G03C001-68
ICS G03F007-10; C08F004-40; C08F002-48
ICA G11B007-24
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3701333	A1	19870813	DE 1987-3701333	19870119
	HU 42642	A2	19870728	HU 1987-477	19870206
PRAI	DD 1986-286882	A	19860207		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3701333	ICM	G03C001-68
	ICS	G03F007-10; C08F004-40; C08F002-48
	ICA	G11B007-24

AB **Photopolymerizable** materials for the preparation of information recording materials and for the preparation of relief images for **printing** plates and printed circuits use an initiator system composed of a combination of a carbonyl compound or an anthraquinone derivative as a H acceptor or an electron acceptor and a heterocyclic compound as a H donor or an electron donor along with an onium compound as a coinitiator. Thus, a mech. roughened Al plate was coated with an acetone solution containing pentaerythritol tetraacrylate, methacrylic acid-styrene oligomer, acrylic acid-Me acrylate-styrene copolymer, diphenyliodonium chloride,

benzophenone, and 2,3-benzoylenequinoxaline, exposed through a mask in direct contact with the layer, and developed with 1% aq Na2CO3 at 20°. The exposure time required to obtain a true reproduction was 10 s.

ST **photopolymer photoimaging** compn **photoinitiator** system; carbonyl compd **photoinitiator photopolymer photoimaging**; onium compd **photointiator photopolymer photoimaging**; heterocycle **photoinitiator photopolymer photoimaging**

IT **Photoimaging** compositions and processes
(**photoinitiator** system containing carbonyl compound and heterocyclic compound and onium compound for)

IT Diazonium compounds
Onium compounds
Phosphonium compounds
Sulfonium compounds
RL: USES (Uses)
(**photoinitiator** systems containing carbonyl compds. and heterocyclic compds. and, for **photopolymer photoimaging** compns.)

IT Heterocyclic compounds
RL: USES (Uses)
(**photoinitiator** systems containing carbonyl compds. and onium compds. and, for **photopolymer photoimaging** compns.)

IT Carbonyl compounds, uses and miscellaneous
RL: USES (Uses)
(**photoinitiator** systems containing heterocyclic compound and onium compound and, for **photopolymer photoimaging** compns.)

IT Lithographic plates
(**photopolymerizable** composition containing **photoinitiator** system from carbonyl compound and heterocyclic compound and onium compound for fabrication of)

IT Onium compounds
RL: USES (Uses)
(iodonium, **photoinitiator** systems containing carbonyl compds. and heterocyclic compds. and, for **photopolymer photoimaging** compns.)

IT Resists
(**photo-**, **photoinitiator** system containing carbonyl compound and heterocyclic compound and onium compound for)

IT Polymerization catalysts
(**photochem.**, carbonyl compound-heterocyclic compound-onium compound systems as)

IT **Printing** plates
(relief, **photopolymerizable** compns. containing **photoinitiator** system from carbonyl compound and heterocyclic compound and onium compound for fabrication of)

IT 9010-92-8
RL: USES (Uses)
(oligomeric, **photopolymer photoimaging** compns. containing carbonyl compound-heterocyclic compound-onium compound **photoinitiator** system and, for **printing** plate fabrication)

IT 4986-89-4, Pentaerythritol tetracrylate 9003-39-8, Poly(vinyl pyrrolidone) 9038-42-0 25586-23-6, Acrylic acid-methyl acrylate-styrene copolymer
RL: USES (Uses)
(**photopolymer photoimaging** composition containing carbonyl compound-heterocyclic compound-onium compound **photoinitiator** system and, for **printing** plate fabrication)

STN search for 10765,797

IT 119-61-9, Benzophenone, uses and miscellaneous 1483-72-3, Diphenyliodonium chloride 5291-44-1 6935-19-9 6954-91-2
RL: USES (Uses)
(**photopolymer photoimaging** composition with **photoinitiator** containing, for **printing** plate fabrication)

L24 ANSWER 39 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:159040 CAPLUS
DN 108:159040
ED Entered STN: 30 Apr 1988
TI Negative-working **photopolymer** composition for relief image production
IN Roth, Christoph; Weigt, Wilfried; Anton, Elisabeth; Mueller, Christine; Heller, Volkmar; **Timpe, Hans Joachim**; Heinzig, Steffen
PA VEB Filmfabrik Wolfen, Fotochemisches Kombinat, Ger. Dem. Rep.
SO Ger. (East), 5 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 243573	A1	19870304	DD 1985-284535	19851217
PRAI DD 1985-284535		19851217		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 243573	ICM	G03C001-68

AB Neg.-working, alkali solution-developable **photopolymerizable** compns. for the production of relief images, **printing** plates, and printed circuits are composed of a radical-forming **photoinitiator**, ≥1 ethylenically unsatd. compound, and a binder mixture from an alkali-soluble polymer and an oligomer of the formula HO2CCH:CHCO2CHR1CH2O(CMePhCH2)nOCH2CHR1O2CCH:CHCO2H (R1 = H, Me, Et, Ph; n = 3-10)(I). The compns. have improved phys.-mech. characteristics in the moist state. Thus, a PET support was coated with a composition containing I (R1 = H; n = 5), maleic acid-styrene copolymer mono-Bu ester, trimethylolpropane triacrylate, benzoin iso-Pr ether, ethylene glycol, and Me2CO, dried, coated with a poly(vinyl alc.) protective layer, dried, imagewise exposed, and swollen with 0.1N NaOH to show excellent wet strength.
ST methylstyrene oligomer relief **photoimaging** compn; **photoresist** neg unsatd methylstyrene oligomer; **printing** plate relief binder
IT **Printing** plates
(neg.-working **photosensitive** compns. containing alkali-soluble polymer binder and unsatd. oligomers for preparation of)
IT **Photoimaging** compositions and processes
(**photopolymer**, neg.-working, containing alkali-soluble polymer binder and unsatd. oligomer for relief images)
IT Resists
(**photo**-, neg.-working, containing alkali-soluble polymer binder and unsatd. oligomers)
IT 25014-31-7D, Poly(α-methylstyrene), carboxylated
RL: USES (Uses)
(oligomeric, neg.-working relief **photoimaging** compns. containing

alkali-soluble polymer binder and, for **photoresists** and **printing** plates)

IT 90-94-8, Michler's ketone 97-90-5 119-61-9, uses and miscellaneous 1070-70-8 2358-84-1, Diethylene glycol dimethacrylate 4986-89-4 6652-28-4 15625-89-5 22499-12-3, Benzoin isobutyl ether
RL: USES (Uses)
(relief **photoimaging** compns. containing alkali-soluble polymer binder and unsatd. oligomer and, neg.-working, for **photoresists** and **printing** plates)

IT 113817-88-2 113817-89-3
RL: USES (Uses)
(relief **photoimaging** compns. containing alkali-soluble polymer binder and, neg.-working, for **photoresist** and **printing** plates)

IT 25135-39-1, Acrylic acid-ethyl acrylate-methyl methacrylate copolymer 25215-62-7, Monobutylmaleate-styrene copolymer
RL: USES (Uses)
(relief **photoimaging** compns. containing unsatd. oligomer and, neg.-working, for **photoresists** and **printing** plates)

L24 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:29433 CAPLUS
DN 108:29433
ED Entered STN: 23 Jan 1988
TI Increasing **photosensitivity** of **photopolymerizable** materials
IN Baumann, Harald; **Timpe, Hans Joachim**; Strehmel, Bernd; Weigt, Wilfried; Boettcher, Horst
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Ger. (East), 4 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 242877	A1	19870211	DD 1982-246147	19821217
PRAI DD 1982-246147		19821217		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 242877	ICM	G03C001-68

AB The **photosensitivity** of spectrally sensitized **photopolymerizable** materials containing a metal complex compound as the initiator involves treating the materials at >50° after the exposure and subsequently developing by a known method. The materials are useful for information recording production of printed circuits and **printing** plates. A polyester film was coated with a composition containing diphenyliodonium chloride (C18H37Me3N)3[Fe(C2O4)3], an epoxide acrylate from diandiglycidyl ether and acrylic acid, and a Me2CO dispersion containing C black and an acrylic acid-Et acrylate-styrene copolymer, dried, exposed for 20 s, heated 5 min at 90°, and treated at room temperature in an aqueous solution containing MeOH 30% and NaOH 2% to give a black image. An unheated control required a 60 s exposure time to produce the same image.

ST **photopolymer photoimaging** compn heating sensitivity; **photoinitiator photopolymer photoimaging** compn sensitivity; metal complex **photoinitiator photoimaging**

compn
IT **Photoimaging** compositions and processes
(**photopolymer**, containing metal complex **photoinitiator**, heating of, for increased sensitivity)
IT **Printing** plates
(**photopolymerizable** compns. containing metal complex **photoinitiator** for fabrication of, heating of, for improved **photosensitivity**)
IT Resists
(**photo-**, **photopolymerizable** compns. containing metal complex **photoinitiator** as, heating of, for improved sensitivity)
IT 4986-89-4 112078-51-0
RL: USES (Uses)
(**photopolymerizable photoimaging** composition containing metal complex **photoinitiator** and, heating of, for improved sensitivity)
IT 437-13-8, Triphenylsulfonium tetrafluoroborate 1483-72-3 5667-47-0 29572-61-0 97202-43-2 97202-44-3 97202-45-4
RL: USES (Uses)
(**photopolymerizable photoimaging** composition containing, heating of, for improved sensitivity)

L24 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:7143 CAPLUS
DN 108:7143
ED Entered STN: 09 Jan 1988
TI **Photopolymers**-Principles and Applications (**Photopolymere** -Prinzipien und Anwendungen)
AU **Timpe, H. J.**; Baumann, H.
CS Ger. Dem. Rep.
SO (1987) Publisher: (VEB Deutscher Verlag fuer Grundstoffindustrie, Leipzig, Ger. Dem. Rep.), 336 pp.
DT Book
LA German
CC 38-1 (Plastics Fabrication and Uses)
Section cross-reference(s): 74
AB Unavailable
ST book **photopolymer**
IT **Photography**
Printing, nonimpact
(principles and applications of)
IT Resists
Polymers
RL: PROC (Process)
(**photo-**, principles and applications of)

L24 ANSWER 42 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1986:234300 CAPLUS
DN 104:234300
ED Entered STN: 27 Jun 1986
TI **Photopolymerizable** material
IN Baumann, Harald; Kraus, Norbert; Mueller, Uwe; Papendick, Birgit; Raetzsch, Manfred; **Timpe, Hans Joachim**
PA Technische Hochschule "Carl Schorlemmer" Leuna-Merseburg, Ger. Dem. Rep.
SO Ger. (East), 14 pp.
CODEN: GEXXA8
DT Patent
LA German
IC ICM G03C001-68

STN search for 10765,797

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DD 225800	A1	19850807	DD 1984-262604	19840502
PRAI	DD 1984-262604		19840502		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 225800	ICM	G03C001-68

AB A **photopolymerizable** material for the preparation of relief images for **printing** plates, printed circuits, information recording materials, or **photohardenable** surface coatings uses as the **photoinitiator** a **photoredox** system in combination with a coinitiator, which induces not only radical polymerization, but also cationic polymerization The use of the coinitiator increases the effectiveness of the system around 5-fold. A H-donor-H-acceptor combination is used in the **photoredox** system, and an onium compound is used as the **photoinitiator.** Thus, a mixture containing Me methacrylate 50, poly(vinylpyrrolidone) 60, Michler's ketone 2, benzophenone 11, diphenyliodonium chloride 10, and MeOH 600 parts was coated on an unsubbed PET film at 10 μm (dry), exposed for 10 s at 30 cm to a high-pressure Hg lamp, and developed with water to give a good relief image.

ST **photopolymer photoimaging** compn relief image; **photoredox** system **photoinitiator** relief imaging; onium compd **photoinitiator** relief imaging

IT Onium compounds
RL: USES (Uses)
(**photopolymer photoimaging** composition containing **photoinitiator** from **photoredox** system and, for relief image formation)

IT Ketones, uses and miscellaneous
RL: USES (Uses)
(**photopolymer photoimaging** compns. containing **photoinitiator** from onium compound and, for relief image formation)

IT **Photoimaging** compositions and processes
(**photopolymer**, onium compound-**photoredox** system as **photoinitiator** in, for relief image production)

IT Resists
(**photo-**, **photopolymer** compns. containing onium compound-**photoredox** system **photoinitiator** for)

IT Electric circuits
(printed, **photopolymerizable** compns. containing onium compound-**photoredox** system **photoinitiator** for fabrication of)

IT **Printing** plates
(relief, **photopolymerizable** compns. containing onium compound-**photoredox** system **photoinitiator** for fabrication of)

IT 80-62-6 106-91-2 4986-89-4 9003-39-8 25215-62-7
RL: USES (Uses)
(**photopolymer photoimaging** composition containing onium compound-**photoredox** system **photoinitiator** and, for relief image production)

IT 90-93-7 90-94-8 119-61-9, uses and miscellaneous
RL: USES (Uses)
(**photopolymer photoimaging** composition containing **photoinitiator** from onium compound and, for relief image formation)

IT 459-64-3 1483-72-3 5667-47-0 102626-88-0

STN search for 10765,797

RL: USES (Uses)
(**photopolymer photoimaging** composition containing **photoinitiator** from **photoredox** system and, for relief image formation)

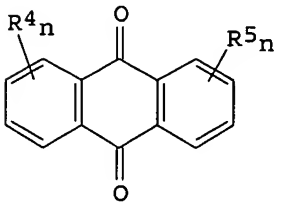
L24 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:581194 CAPLUS
DN 101:181194
ED Entered STN: 10 Nov 1984
TI **Photopolymerizable** material
IN Baumann, Harald; Ullrich, Oertel; **Timpe, Hans Joachim**; Weigt, Wilfried; Boettcher, Horst
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Ger. (East), 12 pp.
CODEN: GEXXA8
DT Patent
LA German
IC G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 208246	A1	19840328	DD 1981-235699	19811214
PRAI DD 1981-235699		19811214		

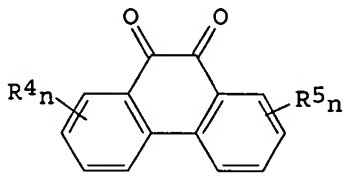
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 208246	IC	G03C001-68

GI



I



II

AB **Photopolymerizable** compns. for the production of **printing** plates and use as **photoresists** are composed of ≥1 monomer capable of cationic or radical polymerization, a carboxyl compound, an initiator, an activator, a binder, addnl. additives, and a combination of ≥1 carbonyl compound of the formula RCOR1, R2COCOR3, I, or II (R, R2, R3 = Ph or substituted Ph; R1 = alkyl, alkoxy, CO2H, Ph, substituted Ph; R4, R5 = H, halogen, alkyl, aryl, acyl, CO2H, alkoxy, sulfonyl, or sulfo; n = 0-4) and ≥1 onium compound Thus, a polyester support was coated at 100-160 mL/m2 with a composition containing an Me2CO solution of phenanthrenquinone (absorption = 1.78 in 5 mm cuvette) 5 mL, s-trioxane 125, glycidyl methacrylate 1.25, carboxylated oligomeric α-methylstyrene 500, and p-chlorobenzenediazonium tetrafluoroborate 75 mg, image exposed for 30 s to a 200 W high-pressure Hg lamp at 30 cm, and developed in 2% aqueous NaOH to give a relief image.

ST carbonyl compd **photoinitiator photopolymer photoimaging**; relief **photopolymer photoimaging**

compn; ketone **photoinitiator photopolymer**
photoimaging compn; anthraquinone deriv **photoinitiator**
photoimaging compn; phenanthrenequinone deriv
photoinitiator photoimaging compn

IT Carbon black, uses and miscellaneous
Polyamides, uses and miscellaneous
RL: USES (Uses)
(**photopolymerizable** compns. containing carbonyl compound **photoinitiators** and, for **photoresists** and **printing** plate fabrication)

IT **Printing** plates
(**photopolymerizable** compns. containing carbonyl compound **photoinitiators** in fabrication of)

IT Carbonyl compounds, uses and miscellaneous
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. containing, as **photoinitiators**)

IT Onium compounds
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. containing, for **photoresists** and **printing** plate fabrication)

IT Resists
(**photo**-, containing carbonyl compds. as **photoinitiators**)

IT **Photoimaging** compositions and processes
(**photopolymerizable**, containing carbonyl compds. as **photoinitiators**)

IT 79-06-1, uses and miscellaneous 106-91-2 437-13-8 459-44-9 673-41-6 673-48-3 1582-27-0 4986-89-4 5459-38-1 25014-31-7D, carboxylated 25053-13-8 25322-68-3 25585-77-7 52754-92-4 58109-41-4
RL: USES (Uses)
(**photopolymerizable** compns. containing carbonyl compound **photoinitiators** and, for **photoresists** and **printing** plate fabrication)

IT 16423-68-0
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. containing carbonyl compound **photoinitiators** and, for **photoresists** and **printing** plate fabrication)

IT 84-11-7 119-61-9, uses and miscellaneous 131-08-8 134-81-6 30637-95-7
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. containing, for **photoresists** and **printing** plate fabrication)

L24 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:496846 CAPLUS
DN 99:96846
ED Entered STN: 12 May 1984
TI **Photopolymerizable** coatings
IN Baumann, Harald; **Timpe, Hans Joachim**; Roth, Christoph; Boettcher, Horst; Marx, Joerg; Weigt, Wilfried
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.
SO Ger. (East), 13 pp.
CODEN: GEXXA8
DT Patent
LA German
IC G03C001-68
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 158281	Z	19830105	DD 1981-228501	19810323
PRAI DD 1981-228501		19810323		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 158281	IC	G03C001-68

AB **Photopolymerizable** layers are described for the production of relief images for **printing** plates or information recording. These layers, which have improved **photosensitivity**, a high crosslinking rate, and improved mech. characteristics of the crosslinked layer, contain an initiator system which upon exposure forms a fragment that initiates the radical polymerization of an ethylenically unsatd. compound and a fragment that in the presence of a coinitiator initiates a cationic polymerization Thus, an Me2CO solution containing glycidyl methacrylate 1.25 + 10-2, an acrylic acid-Et acrylate-styrene copolymer 5 + 10-2, benzoin iso-Pr ether 1.25 + 10-3, and p-methoxybenzenediazonium hexafluorophosphate (I) 1.25 + 10-3 g/mL was coated on a polyester support, and dried. The required exposure time for this layer was 25 s while a I-free layer showed no visible exposure edge even after a 5 min exposure time.

ST **photoimaging** compn **photopolymerizable** relief; **printing** plate relief **photopolymerizable** compn

IT Phenolic resins, uses and miscellaneous
Polyamides, uses and miscellaneous
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. with improved sensitivity containing)

IT Vinyl compounds, polymers
RL: USES (Uses)
(polymers, **photopolymerizable photoimaging** compns. with improved sensitivity containing)

IT **Photoimaging** compositions and processes
(**photopolymerizable**, with improved sensitivity)

IT **Printing** plates
(relief, **photopolymerizable** compns. with improved sensitivity for fabrication of)

IT 61-73-4 79-10-7D, reaction products with dian diglycidyl ether 106-90-1 106-91-2 119-53-9 437-13-8 574-06-1 574-09-4 673-41-6 673-48-3 1675-54-3D, reaction products with acrylic acid 3524-62-7 6652-28-4 6652-29-5 21217-83-4 24806-57-3 25014-31-7 25014-31-7D, carboxylated 25053-13-8 25066-97-1 25585-77-7 41996-78-5 57835-99-1 59487-35-3 80112-49-8 83346-20-7 86776-56-9 86812-78-4
RL: USES (Uses)
(**photopolymerizable photoimaging** compns. with improved sensitivity containing)

L24 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:63324 CAPLUS
DN 98:63324
ED Entered STN: 12 May 1984
TI **Photopolymerizable** composition
IN Roth, Christoph; Boettcher, Horst; Weigt, Wilfried; Anton, Elisabeth; Urban, Otto; **Timpe, Hans Joachim**; Baumann, Harald
PA VEB Filmfabrik Wolfen, Ger. Dem. Rep.

STN search for 10765,797

SO Ger. (East), 12 pp.
CODEN: GEXXA8
DT Patent
LA German
IC G03C001-68
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

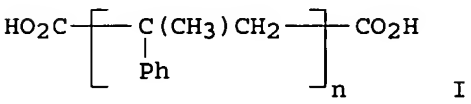
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DD 155361	Z	19820602	DD 1980-226124	19801216
PRAI DD 1980-226124		19801216		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DD 155361	IC	G03C001-68

GI



I

AB **Photopolymerizable** compds. which adhere well to their support, do not stick, and provide a superior detail in information records, printed circuits, or **printing** plates, because the unexposed areas are completely removable in 0.1-2% aqueous alkaline solns. of 25-40°, contain ethylenically unsatd. **photopolymerizable** compds. 10-80%, a polymerization initiator 3-20%, a phenolic stabilizer 0.01-0.1%, and a pigment 1-30%, as binder an alkali-soluble α-methylstyrene oligomer with terminal CO2H groups (I, n = 2-8) 50-85%. Thus, a mixture of pentaerythritol tetraacrylate 28, benzoin iso-Bu ether 3.7, CAMS-1 72, 2,5-di-tert-butylphenol 0.2 g with a dispersion of C 4% and I (mol. weight 550, acid number 156 mg KOH/g) 8% in Me2CO 75 mL and a 3:1 Me2CO-MeCOEt mixture 300 mL was coated on a 100μ polyester foil, dried, exposed through a step wedge to Hg vapor lamp radiation 20 s at 25 cm, and developed 90 s in 1% NaHCO3 at 25°. The layers did not stick, and the development left no pigment residues in the unexposed areas.

ST **photopolymerizable photoimaging** methylstyrene oligomer

IT **Printing** plates
(**photopolymerizable photoimaging** composition for production of)

IT **Photoimaging** compositions and processes
(**photopolymerizable**, containing α-methylstyrene oligomers with carboxyl groups)

IT Electric circuits
(printed, **photopolymerizable photoimaging** composition for production of)

IT 97-90-5 3887-02-3 4986-89-4 15625-89-5 17831-71-9 22499-12-3 25014-31-7D, carboxylated 84284-99-1 84286-28-2
RL: USES (Uses)
(**photopolymerizable photoimaging** composition containing)